



## 1. Application details

### 1.1. Permit application details

Permit application No.: 901/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Main Roads Western Australia

### 1.3. Property details

Property:

SUSSEX LOCATION 3074 (Lot No. 3074 BUSSELL METRICUP 6280)  
 SUSSEX LOCATION 3204 (Lot No. 3204 BUSSELL METRICUP 6280)  
 LOT 817 ON PLAN 135989 (Lot No. 817 BUSSELL YELVERTON 6280)  
 LOT 2600 ON PLAN 203048 (Lot No. 2600 BUSSELL METRICUP 6280)  
 LOT 818 ON PLAN 135990 (Lot No. 818 BUSSELL YELVERTON 6280)  
 LOT 819 ON PLAN 135991 (Lot No. 819 BUSSELL YELVERTON 6280)  
 LOT 1 ON DIAGRAM 20175 (Lot No. 1 BUSSELL METRICUP 6280)  
 LOT 4006 ON PLAN 163153 (Lot No. 4006 BUSSELL METRICUP 6280)  
 LOT 2520 ON PLAN 203046 (Lot No. 5220 BUSSELL METRICUP 6280)  
 LOT 1 ON DIAGRAM 31195 (House No. 118 BUSSELL METRICUP 6280)  
 LOT 2 ON DIAGRAM 88263 (Lot No. 2 BUSSELL METRICUP 6280)  
 ROAD RESERVE (METRICUP 6280)  
 LOT 31 ON PLAN 23103 (Lot No. 31 BUSSELL METRICUP 6280)  
 ROAD RESERVE (METRICUP 6280)  
 LOT 5597 ON PLAN 40310 (METRICUP 6280)  
 LOT 115 ON PLAN 40311 (METRICUP 6280)  
 LOT 116 ON PLAN 40312 (METRICUP 6280)  
 ROAD RESERVE (METRICUP 6280)  
 LOT 2841 ON PLAN 203048 (Lot No. 2841 BUSSELL METRICUP 6280)  
 LOT 2517 ON PLAN 203041 (NORTH JINDONG 6280)  
 LOT 1 ON DIAGRAM 88263 (Lot No. 1 BUSSELL METRICUP 6280)  
 LOT 10 ON DIAGRAM 94109 (METRICUP 6280)  
 LOT 11 ON DIAGRAM 94109 (METRICUP 6280)  
 LOT 114 ON PLAN 40310 (METRICUP 6280)

Local Government Area: Shire Of Busselton  
 Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.7		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
Beard: Unit 1181 - Medium woodland, jarrah & Eucalyptus haematoxylon (Whicher range)	'The vegetation north of Roy Road consisted largely of peppermint trees ( <i>Agonis flexuosa</i> ), Jarrah ( <i>Eucalyptus marginata</i> ), Marri ( <i>Corymbia callophylla</i> ) grass trees ( <i>Xanthorrhoea preissii</i> ) and <i>Kingia australis</i> . The groundcover is dominated by exotic grass species. Further south species included the above and additionally bracken fern ( <i>Pteridium esculentum</i> ), <i>Acacia</i> spp., and a range of non-indigenous tree and	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	As per site visit report.

shrub species.'

'The majority of this stretch of road consists of scatter vegetation'.

Unit 1000 - Mosaic:  
Medium forest; jarrah-marri / Low woodland; banksia / Low forest; tea-tree (Melaleuca spp.)

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)

Mattiske:

Yelverton (Y) - Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Allocasuarina fraseriana-Agonis flexuosas<sup>24</sup> and open woodland of Corymbia calophylla on low undulating uplands in the humid zone.

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)

Yelverton (Yw) - Woodland of Allocasuarina fraseriana-Nuytsia floribunda-Agonis flexuosa-Banksia attenuata on slopes and open forest of Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata on the lower slopes and woodland of Eucalyptus rudis-Melaleuca raphiophylla on valley floors in the humid zone.

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)

Yelverton (Yd) - Woodland of Allocasuarina fraseriana-Eucalyptus marginata subsp. marginata-Xylomelum occidentale-Banksia attenuata on sandy slopes in the humid zone.

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)

### 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 areas proposed to clear are sparsely vegetated and therefore unlikely to hold a high level of biological diversity.

The aerial photograph and a site visit, show that there is little understory in most areas proposed to clear, and that these areas of vegetation are scattered along the roadside. Most of the vegetation along the roadside is of a degraded quality, with many areas comprising of only weed species.

Biota Environmental Sciences conducted flora and fauna surveys on site. They found no Declared Rare or Priority Flora, Significant Fauna species and did not identify the area as being a Threatened Ecological Community.

**Methodology**      Main Roads WA, Bussell Highway Upgrade: Island Brook to Metricup, Environmental Impact Assessment and Environmental Management Plan, 2005  
DoE site visit  
GIS database:  
- Busselton 50cm Orthomosaic - DLI 03

#### (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**

From aerial photography and a site visit, the vegetation appears to be of degraded quality and sparsely distributed, therefore it is likely the habitat value is limited within these areas.

The proposed clearing is unlikely to lower the habitat value of these areas.

'Biota Environmental Sciences undertook a fauna survey as part of the biological survey they completed in

2001.'

'Roadworks are not expected to impact on any local populations'

**Methodology** Main Roads WA, Bussell Highway Upgrade: Island Brook to Metricup, Environmental Impact Assessment and Environmental Management Plan, 2005  
DoE site visit  
GIS database:  
- Busselton 50cm Orthomosaic - DLI 03

**(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**

Thirteen Declared Rare Flora (DRF) populations are mapped within the local area (10km radius), the closest being, *Dryandra squarrosa* subsp. *argillacea*, 6.9km south east of the area proposed to clear. The DRF populations and the area proposed to clear are found within the same vegetation types, Mattiske Yelverton (Yw), yet there is no direct vegetation link.

There are four Priority 1 populations within the local area, the closest, *Andersonia ferricola*, lying 7.2km south east of the area proposed to clear. These Priority 1 populations are also found in vegetation type Mattiske Yelverton (Yw), with no direct vegetation link.

Six Priority 2 populations are found within the local area, *Boronia capitata* subsp. *gracilis*, the closest, at 5.7km west of the proposed clearing. These Priority 2 populations are not vegetatively linked with the area proposed to clear.

There are nineteen Priority 3 populations within the local area, most of which are located on vegetation type Mattiske Yelverton (Y), linking them with the area proposed to clear. The closest Priority 3 population is 2.7km north east of the area proposed to clear.

There are six Priority 4 populations mapped within the local area, *Thysanotus glaucus*, 3.7km west of the area proposed to clear, is the closest. These Priority 4 populations and the area proposed to clear are not vegetatively linked.

'A Biological Survey of the Bussell Highway was conducted for Main Roads by Biota Environmental Sciences in 2001.'

'The Biological Survey did not identify any Declared Rare or Priority Flora within the road verge.'

**Methodology** Main Roads WA, Bussell Highway Upgrade: Island Brook to Metricup, Environmental Impact Assessment and Environmental Management Plan, 2005  
GIS databases:  
- Declared Rare and Priority Flora List - CALM 13/08/03

**(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 sixteen Threatened Ecological Communities (TEC) within the local area, the closest being, PAYNE01 is located 5km east of the proposed clearing.

Six Threatened Plant Communities (TPC) are found within the local area, the closest found 4.2km east of the proposed site.

Site visit and aerial photography show there are no vegetative links between the proposed areas, local TEC's and local TPC's. It is therefore unlikely the TEC's and TPC's will be affected by the small scale clearing proposed.

'The vegetation of the project area has not been defined as a TEC.'

**Methodology** Main Roads WA, Bussell Highway Upgrade: Island Brook to Metricup, Environmental Impact Assessment and Environmental Management Plan, 2005  
GIS databases:  
- Threatened Ecological Communities - CALM 15/7/03  
- Threatened Plant Communities - DEP 06/95

**(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 area under application is located in the Swan Coastal Plain and the Jarrah Forest Bioregions in the Shire of

Busselton. The extent of native vegetation in these areas is 41.8%, 58.3% and 44.5% respectively (Shepherd et al. 2001).

The vegetation of the area applied to clear is a component of Beard Unit 1181 (Hopkins et al. 2001) of which there is 45.3% (Shepherd et al. 2001) of the pre-European extent remaining, and therefore of 'depleted' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation of the area applied to clear is a component of Beard Unit 1000 (Hopkins et al. 2001) of which there is 24.6% (Shepherd et al. 2001) of the pre-European extent remaining, therefore of a 'vulnerable' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation of the area applied to clear is a component of Mattiske Yelverton (Y) (Havel 2002) of which there is 20.0% of the pre-European extent remaining and therefore of a 'vulnerable' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation of the area applied to clear is a component of Mattiske Yelverton (Yw) (Havel 2002) of which there is 12.0% of the pre-European extent remaining and therefore of a 'vulnerable' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation of the area applied to clear is a component of Mattiske Yelverton (Yd) (Havel 2002) of which there is 12.0% of the pre-European extent remaining and therefore of a 'vulnerable' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

Although Mattiske vegetation representation is less than 30% remaining, the vegetation proposed to be cleared is of a degraded quality and isn't representative of the Mattiske vegetation types. The proponents will be revegetating 4 hectares as a condition of the permit, as negotiated. They are also going to relocate all grass trees that need to be removed. Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** Department of Natural Resources and Environment (2002)  
EPA (2000)  
Havel (2002)  
Hopkins et al. (2001)  
Shepherd et al. (2001)  
GIS databases:  
- Mattiske Vegetation - CALM 24/3/98  
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00  
- Local Government Authorities - DLI 8/07/04  
- 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 not likely to be at variance to this Principle**

There are three minor perennial watercourses that the road proposed for widening cross over, and a major perennial watercourse 2.7km south east of the site.

It is unlikely the clearing of the vegetation proposed will impact on any of these watercourses.

Three EPP Lakes are found within the local area, the closest being 3.6km north east of the area proposed to clear. There is no vegetative link between the EPP Lakes and the area under application. The proposed clearing is of a small scale, therefore it is unlikely the proposal will effect these EPP Lakes.

A Resource Enhancement wetland is located 1.5km north of the proposed site, and there is one other Resource Enhancement wetland within the local area. There are no vegetative links between these wetlands and the proposed clearing sites, therefore the proposal is unlikely to impact these wetlands.

Seven Multiple Use wetlands are within the local area, 1.4km north of the proposed site lies the closest Multiple Use wetland. Multiple Use wetlands are described as 'Wetlands with few important ecological attributes and functions remaining'.

**Methodology** Water & Rivers Commission Position Statement: Wetlands  
GIS databases:  
- EPP Lakes - DEP 28/07/03  
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04  
- Hydrography Linear - DoE 1/2/04

**(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**

There is no mapped information on Acid Sulphate Soils (ASS) on the properties. The small scale clearing proposed is unlikely to effect ASS within the local area.

Groundwater salinity for the proposed areas is <500 mg/L, and the Salinity risk is mapped in a low risk area.

**Methodology** GIS databases:  
 - Acid Sulfate Soil Risk Map, SCP - DoE 01/02/04  
 - Salinity Risk LM 25m - DOLA 00.  
 - Groundwater Salinity, Statewide - 22/02/00

**(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**  
 CALM Managed Lands/Waters within the local area of the proposed clearing include, an un-named land, 3.5km west, Walburra Nature Reserve, 3.8km south west and the Haag Nature Reserve, 4.4km north west. There is no vegetative links between any of these Reserves and the area under application.

**Methodology** GIS database:  
 - CALM Managed Lands and Waters - CALM 1/06/04

**(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 not with a Public Drinking Water Source Area.  
  
 The area under application is located within the Carburnup River Catchment area, and the Busselton-Capel RIWI ground water area.  
  
 As the area under application is not a significantly large area, the proposed clearing is not likely to be at variance to this Principle being that the surface water and ground water quality is not likely to be adversely affected.

**Methodology** GIS databases:  
 - Hydrographic Catchments, Catchments - DoE 3/4/03  
 - Public Drinking Water Source Areas (PDWSAs) - DOE 29/11/04  
 - RIWI Act Groundwater Areas WRC 13/06/00

**(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**  
 Flooding impacts are unlikely to occur as a result of the proposed clearing due to its size.

**Methodology** GIS databases:  
 - Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**  
 The Shire of Busselton have no objections to the proposed clearing, however advice was received from the Shire about possible revegetation with locally endemic species.

The properties are zoned as road reserves.  
**Methodology** GIS database:  
 - Town Planning Scheme Zones - MFP 8/98

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	1.7	Grant	The Department recommends approval of this application as it is not at variance to any of the Principles. Negotiation with the applicant, to revegetate 4 hectares as a condition of the permit was completed.

**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.  
 Havel, J.J. and Mattiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.  
 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.  
 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, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.  
 Main Roads WA, Bussell Highway Upgrade: Island Brook to Metricup, Environmental Impact Assessment and Environmental Management Plan, 2005  
 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.

## 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)