



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1063/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Shire of Carnarvon

### 1.3. Property details

Property: LOT 409 ON PLAN 238458 ( MACLEOD 6701)  
LOT 176 ON PLAN 28410 ( LYNDON 6701)  
ROAD RESERVE ( SOUTH PLANTATIONS 6701)  
ROAD RESERVE ( SOUTH PLANTATIONS 6701)

Local Government Area: Shire Of Carnarvon

Colloquial name: South River Road

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
80		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
Quobba Gnarloo Road - Beard Vegetation Association 329: Shrublands; dwarf waterwood (Acacia coriacea) shrubs on recent dunes.	The purpose of the clearing permit is for realignment and/or reformation of 3 roads within the Shire of Carnarvon. The proposed works will include a 7.5km section of the South River road, which occurs within the horticultural area of the Carnarvon township. The other 2 roads are the Gnarloo and Warroora roads that occur within pastoral leases, and each will have approximately a 20km section upgraded. As such, most of the proposed clearing will occur within the pastoral area. The total area proposed to be cleared is 80 hectares, which equates to approximately 2m along the length of all 3 roads.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation was assessed during the site visit conducted by a DEC officer (Site visit 25th May 2006).
Beard Vegetation Association 95: Hummock grasslands, shrub steppe; acacia & grevillea over Triodia basedowii Shepherd et al. 2001			
	The vegetation along the South River Road is dominated by the introduced species Cenchrus ciliaris or buffel grass, however some eucalypts and acacias would also be affected by the proposal. Due to the previous disturbances that have occurred and the high incidence of the buffel grass, the condition of the vegetation in this area is described as degraded. The remaining vegetation		

within the pastoral area is a low heath consisting of various species that correlate well with the Beard descriptions listed for these roads. There is some incidence of buffel grass again, although it is not dominant. The vegetation along these roads is affected by pastoral grazing and in some areas is experiencing sand drift from the road. The condition of the vegetation on the whole would best be described as good.

South River Road -  
Beard Vegetation  
Association 308: Mosaic:  
Shrublands; Acacia  
sclerosperma sparse  
scrub/ Succulent steppe;  
saltbush & bluebush  
Shepherd et al. 2001

The purpose of the clearing permit is for realignment and/or reformation of 3 roads within the Shire of Carnarvon. The proposed works will include a 7.5km section of the South River road, which occurs within the horticultural area of the Carnarvon township. The other 2 roads are the Gnarloo and Warroora roads that occur within pastoral leases, and each will have approximately a 20km section upgraded. As such, most of the proposed clearing will occur within the pastoral area. The total area proposed to be cleared is 80 hectares, which equates to approximately 2m along the length of all 3 roads.

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

The condition of the vegetation was assessed during the site visit conducted by a DEC officer (Site visit 25th May 2006).

The vegetation along the South River Road is dominated by the introduced species *Cenchrus ciliaris* or buffel grass, however some eucalypts and acacias would also be affected by the proposal. Due to the previous disturbances that have occurred and the high incidence of the buffel grass, the condition of the vegetation in this area is described as degraded. The remaining vegetation within the pastoral area is a low heath consisting of various species that correlate well with the Beard descriptions listed for these roads. There is some incidence of buffel grass again, although it is not dominant. The vegetation along these roads is affected by pastoral grazing and in some areas is experiencing sand drift from the road. The condition of the vegetation on the whole would best be described as very good.

Warroora Road -

The purpose of the clearing

Good: Structure

The condition of the vegetation was assessed during the

<p>Beard Vegetation Association 345: Mosaic: Shrublands; Acacia sclerosperma &amp; A. victoriae patchy scrub, barren/ Succulent steppe; saltbush &amp; bluebush</p> <p>Beard Vegetation Association 662: Hummock grassland; shrub steppe; mixed acacia scrub &amp; dwarf scrub with soft spinifex &amp; Triodia basedowii</p> <p>Shepherd et al. 2001</p>	<p>permit is for realignment and/or reformation of 3 roads within the Shire of Carnarvon. The proposed works will include a 7.5km section of the South River road, which occurs within the horticultural area of the Carnarvon township. The other 2 roads are the Gnarloo and Warroora roads that occur within pastoral leases, and each will have approximately a 20km section upgraded. As such, most of the proposed clearing will occur within the pastoral area. The total area proposed to be cleared is 80 hectares, which equates to approximately 2m along the length of all 3 roads.</p>	<p>significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>site visit conducted by a DEC officer (Site visit 25th May 2006).</p>
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The vegetation along the South River Road is dominated by the introduced species *Cenchrus ciliaris* or buffel grass, however some eucalypts and acacias would also be affected by the proposal. Due to the previous disturbances that have occurred and the high incidence of the buffel grass, the condition of the vegetation in this area is described as degraded. The remaining vegetation within the pastoral area is a low heath consisting of various species that correlate well with the Beard descriptions listed for these roads. There is some incidence of buffel grass again, although it is not dominant. The vegetation along these roads is affected by pastoral grazing and in some areas is experiencing sand drift from the road. The condition of the vegetation on the whole would best be described as good.

### 3. Assessment of application against clearing principles

#### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

<p>Comments</p>	<p><b>Proposal is not likely to be at variance to this Principle</b></p> <p>Due to the degraded condition of the vegetation and low number of species present along the South River Road, it is unlikely to present an area of high biodiversity within the local area. For the vegetation within the pastoral area, with a greater number of species present, less disturbance and a condition rating of very good, the biodiversity is much higher. However, the roads occur within a well vegetated landscape in a bioregion that retains most of its original vegetation. As such the areas under application are not likely to represent a higher level of biodiversity than the vegetation within the local and greater area that will remain. Therefore the proposal is not likely to be at variance to this Principle.</p>
<p>Methodology</p>	<p>Site visit, DEC Officer 2006. GIS Databases: Interim Biogeographic Regionalisation of Australia - EA 18/10/00 Keighery 1994.</p>

**(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**

Given the location and condition of the South River Road, it is unlikely to represent a significant habitat for local fauna. In addition there will be minimal clearing of native species for the works proposed along this road due to the dominance of the buffel grass. Within the pastoral area, although the vegetation is in very good condition, it is likely that fauna would be able to find similar habitat to that which is proposed to be cleared, given the well vegetated landscape that surrounds these areas. Therefore the proposal is not likely to be at variance to this Principle

**Methodology** Keighery 1994.  
Site visit, DoE Officer 2006.

**(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**

A search of the appropriate database has not located any Declared Rare or Priority flora occurring within the areas under application or a 10km radius of them. Indeed there are very few records of DRF or Priority flora for the whole of the Shire of Carnarvon. Given the information available, the proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases: Declared Rare and Priority Flora list - CALM 01/07/05.  
Site visit, DoE Officer 2006.

**(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**

A search of the appropriate database has not located any Threatened Ecological Communities occurring within the areas under application or the Shire of Carnarvon. Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases: Threatened Ecological Communities - CALM 12/04/05

**(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 at variance to this Principle**

While no specific data is available for the Shire of Carnarvon, both the Carnarvon IBRA bioregion and all of the Beard vegetation associations relating to this application, have a conservation status of 'least concern'. Given that the areas under application do not occur within an extensively cleared landscape, the proposal is not at variance to this Principle.

	Pre-European Reserves/CALM- area (ha)*	Current extent (ha)*	Remaining %*	Conservation status**	managed land,
%					
IBRA Bioregion - Carnarvon	8,523,963	8,523,963	100	Least concern	Not available
Shire - Carnarvon	Not Available	-	-	-	Not available
Beard veg type - 95	1,363,428	1,363,428	100	Least concern	5.8
Beard veg type - 308	496,965	491,901	99	Least concern	0.4
Beard veg type - 329	29,421	29,421	100	Least concern	0
Beard veg type - 345	62,536	62,536	100	Least concern	0
Beard veg type - 662	308,549	308,549	100	Least concern	2.3

\* (Shepherd et al. 2001)

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

**Methodology** Shepherd et al, 2001.  
Department of Natural Resources and Environment, 2002  
GIS Databases:  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
- Pre-European Vegetation - DA 01/01  
- Local Government Authorities - DLI 08/07/04.

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

There are no water features associated with either the Gnarloo or Warroora roads that are located in the pastoral area. However the South River Road, as its name suggests, runs parallel to the Gascoyne River. The distance between the edge of the river and the road varies greatly, but at its minimum is approximately 20m. Given that the road is already in place and that minimal clearing of riparian vegetation will occur due to the dominance of buffel grass immediately adjacent to the road, it is not anticipated that the clearing would reduce the value or natural function of the Gascoyne River. Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases: Hydrography, linear - DoE 01/02/04  
Site visit, DoE Officer 2006.

**(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**

As the clearing of this proposal is for the purpose of road works, the areas cleared will be developed to minimise the potential for land degradation, to maintain the integrity of the roads. Currently sections of the Gnarloo and Warroora roads are suffering the effects of wind erosion, as in some areas the road is lower than the surrounding landscape which leads to it acting as a wind tunnel. This has led to sand building up at the side of the roads smothering vegetation and exacerbating the wind tunnel effect. The Shire wishes to reform these roads, bringing them level with the surrounding landscape to reduce the current problems of wind erosion. There is no evidence of any degradation around the South River road, and given that it is a bituminised roadway it is not anticipated that there are risks of erosion. The proposal is not likely to be at variance to this Principle.

**Methodology** Site visit, DoE Officer 2006.

**(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 at variance to this Principle**

There are a number of conservation areas within the vicinity of the areas under application. The McNeill Claypan System is approximately 1km south of the South River road, the Ningaloo Marine Park is approximately 5km from the Warroora road, and Lake MacLeod is approximately 7km from Gnarloo road. Given that all of these conservation areas are related to water features, are some distance from the areas under application and are otherwise surrounded by relatively well vegetated landscapes, it is not anticipated that this proposal will affect these areas. Therefore the proposal is not at variance to this Principle.

**Methodology** Site visit, DoE Officer 2006.  
GIS Databases:  
- CALM Regional Parks - CALM 12/04/02  
- CALM Managed Lands & Waters - CALM 01/07/05  
- Proposed National Parks FMP-CALM 19/03/03  
- Register of National Estate - EA 28/01/03

**(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 Gnarloo Road and Warroora Road both fall within the Coastal catchment area with a low annual rainfall of 300mm. The South River Road falls within the Gascoyne River catchment and lies adjacent to the Gascoyne River with an annual rainfall of 300mm. South River Road also lies adjacent to the P1 Public Drinking Water Source Area. The areas under application are a thin linear tract of vegetation, which will require approximately 2m of vegetation to be removed along the lengths of the three roads. Given the small amount of native vegetation to be removed within the road reserves, this proposal is unlikely to cause deterioration in the quality of surface or underground water.

**Methodology** GIS Databases:  
- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05  
- Hydrographic Catchments - Catchments - DOE 23/03/05  
- Rainfall, Mean Annual - BOM 30/09/01

**(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**

All three roads under application fall within the low rainfall area of 300mm per annum. The South River Road

reserve runs parallel with the proclaimed Gascoyne River in a known floodwater fringe zone. The areas under application are a thin linear tract of vegetation, which will require approximately 2m of vegetation to be removed along the lengths of the three roads. All areas under application show signs of disturbance and given the small amount of native vegetation to be cleared, it is unlikely that this proposal will increase the peak flood height or duration of flooding. It is considered that the removal of vegetation from the three sites is not likely to cause, or exacerbate the incidence of flooding.

**Methodology** GIS Databases :  
 - Hydrography, linear - DoE 01/02/04  
 - Soils, Statewide - DA 11/99

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

**Comments**

There is one Environmental Impact Assessment over the area under application. CRN145179 relates to the Shire of Carnarvon Town Planning Scheme. This EIA does not affect this proposal as the areas under application are existing roads within the Shire of Carnarvon.

The Shire of Carnarvon has not advised if there are any planning approvals or requirements that may affect this proposal.

The Shire of Carnarvon have advised that they are exercising their power under Section 3.52 of the Local Government Act 1995 to undertake these works within South River, Gnarloo Road and Warroora Road Reserves. It is the CEO of the Departments' view that the grant of a clearing permit in this case constitutes a secondary approval that removes the Environmental Protection Act's prohibition on the applicant exercising its statutory powers. Accordingly, the CEO is not required to comply with future act procedures under the Native Title Act 1993.

**Methodology**

**4. Assessor's recommendations**

Purpose	Method Applied	Decision	Comment / recommendation	
Road construction or maintenance	Mechanical Removal	80 area (ha)/ trees	Grant	The assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the permit should be granted.

**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.

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)



