



**1. Application details**

**1.1. Permit application details**

Permit application No.: 1572/1  
 Permit type: Purpose Permit

**1.2. Proponent details**

Proponent's name: Shire of Carnarvon

**1.3. Property details**

Property: LOT 4 ON PLAN 27392  
 Local Government Area: Shire Of Carnarvon  
 Colloquial name: Robinson Street

**1.4. Application**

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.74		Mechanical Removal	Hazard reduction or fire control

**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 308: Mosalac: Shrublands; Acacia sclerosperma sparse scrub / Succulent steppe; saltbush & bluebush. Shepherd et al. 2001.	The area under application comprises an area of 0.74ha, which the Shire of Carnarvon proposes to selectively clear for the purpose of fire control. The vegetation is dominated by succulent steppe; including saltbush and bluebush, with some acacia. The only signs of disturbance are small areas that have been previously cleared, and some walk trails that occur through the area under application. Although the current condition of the vegetation under application is considered to be excellent, the area historically forms part of a floodplain that has been managed with the construction of a levee bank to the east of the proposed clearing in preceding years. Consequently it is probable that the levee bank may have altered the original vegetation structure of the vegetation proposed to be cleared.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation was determined during a DEC Site Visit conducted on 2 November 2006.

**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 proposal is to selectively clear 0.74 hectares of native vegetation for the purpose of fire prevention. The area under application is described as Beard Vegetation Association 308, which is common to the Carnarvon region and well represented with 99% of its pre-European extent remaining. The vegetation of the proposal area was found to be in excellent condition (DEC Site Visit, 2006).

The area historically forms part of a floodplain that has been managed with the construction of a levee bank to the east of the proposed clearing in preceding years. Consequently it is probable that the levee bank may have altered the original vegetation structure of the vegetation proposed to be cleared.

The DEC Site Report (2006) suggests that some of the area under application has been previously disturbed as evidenced by small cleared areas and walk trails. In addition, the proposed clearing is located within close proximity to the centre of town and the airport. These variables may have compromised the original biodiversity and habitat value of the proposed clearing area.

Although the vegetation within the proposed clearing was found to be in excellent condition, it is regionally extensive in size, and also may not represent the original vegetation type due to the construction of a levee bank to the east.

The proposal is therefore unlikely to be at variance to this principle. However, given that the vegetation impacted by the proposed clearing is considered to be in excellent condition, the permit includes management conditions aimed at avoiding and minimising the clearing of native vegetation, and ameliorating the risk of weed invasion.

**Methodology** DEC Site Visit Report (2006).  
Shepherd et al. (2001)  
GIS Database:  
- Pre-European Vegetation - DA 10/01

**(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 area proposed to be cleared is small (0.74ha) within an urban area. It is also in close proximity to well-vegetated areas of similar habitat value, and that the Beard Vegetation Association of the proposed clearing is well represented within the region. It is unlikely that the proposed clearing is necessary for the maintenance of significant habitat for fauna indigenous to Western Australia.

**Methodology** DEC Site Visit Report (2006)  
Shepherd et al. (2001)  
GIS Databases:  
- Pre-European Vegetation - DA 01/01

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

**Comments** **Proposal is not at variance to this Principle**  
Mapping indicates that there are no known records of Declared Rare or Priority flora occurring within a 10km radius of the proposed clearing. The closest occurrence of significant flora is a Priority 2 species that is located approximately 80km from the area under application. Therefore it is highly unlikely that the proposed clearing would be necessary for the continued existence of rare flora.

**Methodology** GIS Databases:  
- Declared Rare and Priority Flora list - CALM 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 at variance to this Principle**  
There are no known Threatened Ecological Communities (TECs) or Threatened Plant Communities (TPCs) within a 100 kilometre radius of the area under application. Therefore the proposal is not at variance to this Principle.

**Methodology** GIS Database:  
- Threatened Ecological communities - CALM 12/04/05  
- 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 at variance to this Principle**

Pre-European (ha)*	Current Extent (ha)*	Remaining (%)*	Conservation Status**	
IBRA Bioregion: Carnarvon	8,532,963	8,532,963	100	Least concern
Beard Unit 308	496,965	491,901	99.0	Least concern

- \* (Shepherd et al. 2001)
- \*\* (Department of Natural Resources and Environment 2002)
- \*\*\* Within the Intensive Landuse Zone

The area under application is located in the Shire of Carnarvon and within the Carnarvon Bioregion. Although there is no available data for the former, the extent of pre-European vegetation within the Carnarvon Bioregion is 100%.

The vegetation proposed to be cleared is a component of Beard Vegetation Association 308 (Hopkins et al., 2001) of which 99% of its pre-European extent remains (Shepherd et al., 2001). Both the Carnarvon Bioregion and Beard Vegetation Association 308 have a conservation status of 'least concern' (Department of Natural Resources and Environment 2002).

Given that the proposed clearing does not fall within an extensively cleared area and that the pre-European extent of the Carnarvon Bioregion and Beard Vegetation Association meet the National Objectives Targets for Biodiversity Conservation 2001 - 2005 (being greater than 30% of that present pre-1750) this proposal is not at variance to this principle.

**Methodology** Shepherd et al (2001)  
Hopkins et al., 2001  
Department of Natural Resources and Environment (2002)  
GIS Database:  
- Pre-European Vegetation - DA 10/01  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00

**(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 wetlands or watercourses directly associated with the proposed clearing site. The closest wetland is a floodplain associated with the Gascoyne River located 1.3km north-west of the proposed clearing. The Carnarvon estuary is located 620m to the west of the area under application and an ANCA wetland, the McNeill Clayplan System, lies 5.2kms to the east.

A minor non-perennial watercourse and a small watercourse occur some 50 to 130m east of the area proposed to be cleared. The proposed clearing for fire control is not expected to impact the environmental values of these watercourses.

The proposed clearing is not in direct association with a watercourse, and as such is unlikely to be at variance to this principle.

**Methodology** GIS Database:  
- Rivers 250K - GA  
- ANCA, Wetlands - CALM 08/01  
- Lakes, 1M - GA 01/06/00

**(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 topography of the area is relatively flat, with a mean annual rainfall of 300mm.

A report by the Department of Agriculture and Food (DAFWA, 2007) identified the potential for land degradation during works in the form of wind erosion, and concluded that the proposed clearing may be at variance to this principle. The report stated that these risks can be minimised with appropriate management strategies. However, the original report by DAFWA was based on the clearing of 3.04ha for the purpose of road realignment and fire control. The Shire of Carnarvon has since amended their application to an area of 0.74ha which they propose to selectively clear for fire control.

Given that the Shire do not intend to completely clear the area under application, it is considered that the selective clearing of 0.74ha of native vegetation for fire control is unlikely to cause any appreciable land degradation due to the small scale and nature of the proposed clearing.

**Methodology** DEC Site Visit Report (2006)  
DAFWA (2007)  
GIS Database:  
- Topographic Contours, Statewide - DOLA 12/09/02  
- Rainfall, Mean Annual - BOM 30/09/01

**(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**

Two 'A' Class Reserves, Chinaman's Pool Nature Reserve and One Tree Point Nature Reserve, are located 1.7kms NNE and 1.9km NW respectively of the area under application. These reserves are of the same Beard Vegetation Association as the proposed clearing, of which there is 99% of its pre-European extent remaining. Located 1.18kms to the south lies the Wooramel Seagrass Bank, listed on the Register of National Estate. As this conservation area falls within a marine environment which has a different vegetation type to the vegetation to be cleared, it is not expected that the proposed clearing for fire control will impact on the environmental values of this conservation area.

Given that the proposed clearing is not adjacent to conservation reserves and that the vegetation proposed to be cleared is well represented with 99% of its pre-European extent remaining, the proposal is not at variance to this principle.

**Methodology GIS Database:**

- CALM Managed Lands and Waters - CALM 1/07/05
- WRC Estate - DOE 9/04
- 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 proposed clearing site lies within the Gascoyne River Catchment. The region is of low relief with an annual rainfall of 300mm.

Due to the small area proposed to be cleared in relation to the topography, it is unlikely that the selective clearing of native vegetation for fire control will cause deterioration in the quality of surface water or groundwater within the local area.

**Methodology DEC Site Visit Report (2006)**

**GIS Database:**

- Hydrographic Catchments - Catchments - DOE 23/03/05
- Rainfall, Mean Annual - BOM 30/09/01
- 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 not likely to be at variance to this Principle**

The Shire proposes to selectively clear native vegetation within an area of 0.74ha for the purpose of fire control.

The area under application historically forms part of a floodplain within the estuarine region of Carnarvon. To the east of the proposed clearing is a levee bank constructed in preceding years to ameliorate the threat of flooding to the town of Carnarvon. Given the scale and nature of the proposed clearing, it is unlikely to exacerbate the risk of flooding within the local area.

**Methodology DEC Site Visit Report (2006)**

DAFWA (2007)

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

**Comments**

No submissions from the public have been received.

There is no further requirement for a RIWI Act Licence, Works Approval or EP Act Licence for the area under application.

DAFWA (2007) found that there is a risk of wind erosion while construction activity is in progress. DAFWA have advised that the proponent be given a reminder that some of the soils present are particularly susceptible to wind erosion, and may cause nuisance while the proposed works are in progress. However, the original report by DAFWA was based on the clearing of 3.04ha for the purpose of road realignment and fire control. The Shire of Carnarvon has since amended its application, and now do not intend to continue with the proposed roadworks. The application has been amended to an area of 0.74ha which the Shire proposes to selectively clear for fire control.

There is a Native Title Claim over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian Newspaper constitutes legal notification of the Native Title representative body for the purpose of the future act procedures under the Native Title Act

1993. No response was received from the representative body.  
**Methodology** DAFWA (2007)  
 GIS Database:  
 - Native Title Claims - DLI 07/11/05

**4. Assessor's comments**

Purpose	Method Applied	area (ha)/ trees	Comment
Hazard reduction or fire control	Mechanical Removal	0.74	The assessable criteria have been addressed, and the proposal is not at variance to Principles (c), (d) and (e); and is not likely to be at variance to Principles (a), (b), (f), (h), (g), (h), (i) and (j).  However, given that the vegetation impacted by the proposed clearing is considered to be in excellent condition, the permit includes management conditions aimed at avoiding and minimising the clearing of native vegetation, and ameliorating the risk of weed invasion.

**5. References**

DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref DOC13859.  
 DEC Site Visit Report (November 2006). DEC TRIM Ref DOC12369  
 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.  
 Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALM Science after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.  
 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
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)