



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1884/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Shire of Northampton

### 1.3. Property details

Property: ROAD RESERVE ( KALBARRI 6536)  
Local Government Area: Shire Of Northampton  
Colloquial name: Red Bluff Road Reserve

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		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 vegetation association 383: Shrublands; Acacia rostellifera scrub-heath (Hopkins et al. 2001; Shepherd et al. 2001).	A major non-perennial watercourse (Wittecarra Creek) traverses approximately halfway through the proposed road widening area and forms a swamp on both sides of the existing road. The vegetation in the road reserve and the riparian zone is in fairly good condition on the western side and sparse on the eastern side. Halosarcia spp. (samphires) dominate the riparian vegetation and Casuarina obesa (sheoak) dominates the road sides further up slope. There is little or no understorey in the sheoak stands. Road verges contain weeds such as wild oats, African lovegrass and buffel grass. Overall, the vegetation appears to be in a 'good' condition (Keighery 1994).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The description and condition of the vegetation under application were obtained through a site inspection conducted on 9 August 2007 (Site Visit Report 2007).

## 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**  
A major non-perennial watercourse traverses approximately halfway through the proposed road widening area and forms a swamp on both sides of the existing road. The vegetation in the road reserve and the riparian zone is growing densely on the western side and sparsely on the eastern side. Halosarcia spp. (samphires) dominate the riparian vegetation and Casuarina obesa (sheoak) dominates the road sides further up slope. There is little or no understorey in the sheoak stands. Road verges contain weeds such as wild oats, African lovegrass and buffel grass. (Site Visit Report 2007) Overall, the vegetation appears to be in a 'good' condition (Keighery 1994).

Considering the low level of species and ecosystem diversity, and the fragmentation caused to the vegetation by human activity, it is unlikely that the area under application is representative of an area of outstanding biodiversity.

Therefore, this proposal is not likely to be at variance with this Principle.

**Methodology** GIS Databases:  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.  
Keighery 1994  
Site Visit Report 2007

**(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**

There are no known occurrences of Threatened or Priority Fauna species within a radius of 10 km. The vegetation in the road reserve and the riparian zone is growing densely on the western side and sparsely on the eastern side. *Halosarcia* spp. (samphires) dominate the riparian vegetation and *Casuarina obesa* (sheoak) dominates the road sides further up slope. There is little or no understorey in the sheoak stands. Road verges contain weeds such as wild oats, African lovegrass and buffel grass. (Site Visit Report 2007) Overall, the vegetation appears to be in a 'good' condition (Keighery 1994).

Given the high level of disturbance from human presence in the proposal area and the area to be cleared is small (1.0 ha inclusive of bitumen surface) and narrow, it is unlikely that the area under application is representative of a significant habitat for fauna.

Therefore, this proposal is unlikely to be at variance with this Principle.

**Methodology** GIS Databases:  
- Threatened Fauna - CALM 30/09/05  
Keighery 1994  
Site Visit Report 2007

**(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**

There are seven records of Declared Rare Flora (DRF), one record of Priority 4 Flora and one record of Priority 2 Flora within a radius of 10 km. The vegetation in the road reserve and the riparian zone is growing densely on the western side and sparsely on the eastern side. *Halosarcia* spp. (samphires) dominate the riparian vegetation and *Casuarina obesa* (sheoak) dominates the road sides further up slope. There is little or no understorey in the sheoak stands. Road verges contain weeds such as wild oats, African lovegrass and buffel grass. (Site Visit Report 2007) Overall, the vegetation appears to be in a 'good' condition (Keighery 1994).

The closest of the DRF occurs approximately 550 m away from the area under application. However, this DRF population occurs upslope on a rocky outcrop that displays a substrate type that is different from the soil type within the area under application. As well as the closest population, all other populations of the Declared Rare and Priority taxa occur in soil types that are different from the soil type in the area under application.

Given that the proposed clearing is only a narrow strip of vegetation on either side of a road reserve, and given the level of disturbance from human activity, the vegetation in the area under application is not likely to be necessary for the existence of rare flora.

This proposal is therefore unlikely to be at variance with this Principle.

**Methodology** GIS Databases:  
- Declared Rare and Priority Flora list - CALM 01/07/05  
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05  
- Soils, Statewide - DA 11/99  
Keighery 1994  
Site Visit Report 2007

**(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 records of Threatened Ecological Communities (TECs) within a radius of 10 km. Therefore it is unlikely that the proposed clearing is at variance with this Principle.

**Methodology** GIS Databases:

**(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					
	Pre-European	Current area (ha)	Remaining extent (ha)	Conservation %*	Reserves/CALM-status**	managed land,
	%					
IBRA Bioregion - Geraldton Sandplains		3,136,277	1,324,440	42.2	Depleted	35.5
Shire - Northampton		1,354,323	83,759	19.6	Vulnerable	19.6
Beard veg type - 383		13,293	13,081	98.4	Least concern	17.9
* (Shepherd et al. 2001; Shepherd 2006)						
** (Department of Natural Resources and Environment 2002)						

The vegetation under application is a component of Beard Vegetation Association 383 (Hopkins et al. 2001) of which there is 98.4 % of the pre-European extent remaining (Shepherd et al. 2001; Shepherd 2006) and therefore of a 'least concern' status of biodiversity conservation (Department of Natural Resources and Environment 2002). The vegetation under application is within the Shire of Northampton where there is 19.6 % of the pre-European extent remaining (Shepherd et al. 2001; Shepherd 2006) and therefore of a 'vulnerable' status for biodiversity conservation (Department of Natural Resources and Environment 2002). The proposal area is within the Geraldton Sandplains Bioregion with 42.2 % of the pre-European extent remaining (Shepherd et al. 2001; Shepherd 2006) and therefore 'depleted' in terms of biodiversity conservation (Department of Natural Resources and Environment 2002).

The area under application does not fall within the Intensive Landuse Zone and therefore EPA Position Statement No 2 does not apply.

Considering that the pre-European extent of Beard Vegetation Association 383 and the Geraldton Sandplains Bioregion are represented by levels that are higher than the threshold level of 30 %, as set out by the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001), and the area to be cleared is small (1.0 ha inclusive of bitumen surface), this proposal is not likely to be at variance to this principle.

Methodology	GIS Databases:
	- Interim Biogeographic Regionalisation of Australia - EA 18/10/00 - Pre-European Vegetation - DA 01/01 - Local Government Authorities - DLI 08/07/04 - EPA Position Paper No 2 Agriculture Region - DEP 12/00 AGPS 2001 Department of Natural Resources and Environment 2002 Shepherd 2006 Shepherd 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	<b>Proposal is not likely to be at variance to this Principle</b>
	The vegetation in the area under application is associated with a major non-perennial water course that consists of fringing vegetation growing densely on the western side and sparsely on the eastern side. Halosarcia spp. (samphires) dominates the riparian vegetation. (Site Visit Report 2007) The water course in the area under application appears to be an estuary as it is close to the ocean (approximately 350 m) on an area that lies at sea level. The existing road lies at an elevated position and the watercourse runs through a culvert across the road.
	Given that road widening activities will require removal of only small narrow strips of samphire vegetation along both sides of the causeway, the proposed clearing is not likely to have a significant impact on the ecological values of the watercourse.
	Therefore this proposal is not likely to be at variance with this Principle.

Methodology	GIS Databases:
	- Hydrography, linear - DoE 01/02/04 - Hydrographic Catchments - Catchments - DoE 23/03/05 Site Visit Report 2007

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal may be at variance to this Principle**

The area under application is located near the coast (approximately 350 m) and has a mean annual rainfall of 500 mm. Soils are largely undescribed but include loose siliceous sands, with some sandstone outcrops on hills, minor areas of red duplex soils, some neutral red earths and yellow sands. There is no data available for salinity risk; however, it is reasonable to assume that the ground and surface water in the local area is saline due to its close proximity to the ocean. Water logging or salinity may not occur due to the proposed clearing because the proposal area is small (1.0 ha inclusive of the bitumen surface).

The removal of roadside vegetation will expose the soil surface to wind and water and may cause erosion. Therefore this proposal may be at variance to this Principle.

In order to minimise the possible erosion impacts, wind and water erosion conditions will be imposed if clearing is approved.

**Methodology** GIS Databases:  
- Rainfall, Mean Annual - BOM 30/09/01  
- 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**

An Australian Nature Conservation Agency wetland, which is also an Environmentally Sensitive Area (ESA), is situated approximately 1.3 km northeast of the proposal area. The southern flank of the Kalbarri National Park, registered as National Estate and an ESA extends from southwest to northeast, with its closest point being situated at approximately 500 m southwest of the area under application.

However, the removal of a linear strip of vegetation from a small area (1.0 ha inclusive of bitumen surface) is not likely to have any impact on these Conservation Areas. In addition, the site inspection revealed that areas immediately surrounding the proposal area are fragmented by road networks and vehicular and walking tracks, suggesting that the ever-increasing human activity in and around the proposal area does not seem to create an opportunity to link the area under application with the existing conservation areas.

Therefore, this proposal is not likely to be at variance with this Principle.

**Methodology** 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  
- ANCA, Wetlands - CALM 08/01

**(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 may be at variance to this Principle**

The proposal area contains a major non-perennial water course that forms an estuary near the area under application. The area under application is situated within the Coastal hydrographic catchment. The mean annual rainfall in the region is 500 mm. There is no Public Drinking Water Source Areas (PDWSA) in the proposal area. Groundwater depth or quality could not be established from available data. The proposal area is situated approximately 350 m away from the coast.

Considering the close proximity of the proposal area to the coast (350 m), clearing of vegetation is not likely to deteriorate the quality of the underground water any further as it is expected to be already saline. The proposed clearing is small (1.0 ha inclusive of bitumen surface) and therefore unlikely to change the salinity and pH levels or cause harm to the groundwater-dependent ecosystems and their biological communities.

The exposed slopes on both sides of the road may exacerbate water erosion and cause sedimentation of the watercourse. Therefore this proposal may be at variance to this Principle.

To minimise the impact of potential sedimentation, water erosion conditions will be imposed if clearing is approved.

**Methodology** GIS Databases:  
- Current WIN data sets  
- Public Drinking Water Source Areas (PDWSAs) - DOE 09/08/05  
- Hydrographic Catchments - Catchments - DOE 23/03/05

- Hydrography, linear - DoE 01/02/04
- 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**

The area under application consists of narrow, linear strips of vegetation. The mean annual rainfall in the region is 500 mm. Data are not available to estimate the depth to groundwater.

Due to the relatively low average annual rainfall in the region (500 mm) and the area of vegetation removal is narrow and small (1.0 ha inclusive of bitumen surface), the proposed clearing is unlikely to exacerbate flooding.

**Methodology GIS Databases:**

- Soils, Statewide - DA 11/99
- Rainfall, Mean Annual - BOM 30/09/01

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

**Comments**

The Shire of Northampton advised that 'there are no planning approvals or requirements for the proposed works. The works involve the widening of an existing road on an existing road reserve with all works being contained within that road reserve'.

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

DOW advised that 'As the watercourse is not in a Proclaimed Surface Water Area as per the RIWI Act, a Permit to interfere with bed and banks is not required.'

There is a Native Title claim over the area under application, however the clearing proposal falls within a road reserve which is being managed by the Shire of Northampton. The advertisement of the application in the West Australian newspaper by the Department of Environment and Conservation 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.

The area under application is covered by two Environmental Impact Assessments (CRN134145 and CRN119444). CRN134145 is the Shire of Northampton's Town Planning Scheme for Kalbarri Townsite (TPS 9). The clearing purpose is consistent with the types of landuse designated for the area. The TPS has been given a Level of Assessment of 18 [Scheme Amendment Not Assessed (no appeals)]. The Level of Assessment has been set on 2 December 1998. The other EIA is the Geraldton Region Plan (CRN119444) which identifies areas for proposed infrastructure development and conservation in the Midwest Region (EPA 1998). The area under application has not been identified as an area of interest.

There are no Aboriginal Sites of significance within the proposal area.

**Methodology DOW (2007)**

GIS Databases:

- Aboriginal Sites of Significance - DIA 28/02/03
- Environmental Impact Assessments - DOE 24/02/06
- Native Title Claims - DLI 17/11/05

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Road construction or maintenance	Mechanical Removal	1	<p>The assessable criteria have been addressed and the proposal may be at variance to Principle (g) and Principle (i).</p> <p>Principle (g): The removal of roadside vegetation will expose the soil surface to wind and water and may cause erosion.</p> <p>Principle (i): The exposed slopes on both sides of the road may exacerbate water erosion and cause sedimentation of the watercourse.</p> <p>In order to minimise the possible erosion impacts, wind and water erosion conditions will be imposed if clearing is approved.</p>

**5. References**

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia,

Canberra.

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.

DOW (2007) CPS Water Allocation Check List. Department of Water. DEC TRIM Ref DOC38361.

EPA (1998) Geraldton Region Plan. Environmental Protection Authority Bulletin Number 891, Government of Western Australia.

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.

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, 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. (2006) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

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 Report (2007) Department of Environment and Conservation (DEC), Western Australia. DEC TRIM Ref DOC37839.

## 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)