



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1407/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Shire of Beverley

### 1.3. Property details

Property: ROAD RESERVE ( DALE 6304)  
ROAD RESERVE ( DALE 6304)  
Local Government Area: Shire Of Beverley  
Colloquial name: Adjacent to Lot 40 Westdale Road, Beverley

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.2		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 4: Medium woodland; marri and wandoo.	The area under application is located within a road reserve with only the southern boundary to be cleared, which is adjacent to Lot 40 Westdale Road.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The vegetation under application and surrounding roadside vegetation appears to be in a degraded to good condition as it has been disturbed from previous maintenance works associated with the existing road.
Beard Vegetation Association 352: Medium woodland; York gum (Hopkins et al. 2001, Shepherd et al. 2001).	The clearing of approximately 10-12 trees (0.2ha) is for realignment of a small section of Westdale Road, to straighten a bend in the road (Information provided by the proponent DEC TRIM Ref EI6460).		
Mattiske Vegetation Complex Michibin Complex: Open woodland of Eucalyptus wandoo over Acacia acuminata with some Eucalyptus loxophleba on valley slopes, with low woodland of Allocasuarina huegeliana on or near shallow granite outcrops in arid and perarid zones (Mattiske Consulting 1998).			

## 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 for 10-12 trees with associated understorey for the realignment of a small section of Westdale Road. Aerial photography shows the area to be in degraded to good condition with a number of trees remaining in the area to be cleared.

The area under application has been previously disturbed from ongoing road maintenance and is within the road reserve. Given the level of disturbance it is unlikely that the area under application is of higher biodiversity value than that of other less disturbed areas in the local area, including the surrounding conservation reserves and the adjoining uncleared agricultural land (Lot 40).

**Methodology** GIS Databases:

- Cadastre - DLI 1/12/05
- Northam 1m Orthomosaic - DLI 12/03

**(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**

Aerial photography of the area indicates that the vegetation is in degraded to good condition (Keighery 1994) consisting mainly of trees. The area is connected to a large area of intact vegetation which appears to be in very good condition (Keighery 1994).

Given the small area under application (0.2ha) it is unlikely that the vegetation within the area under application comprises significant habitat for fauna indigenous to Western Australia.

**Methodology** Keighery (1994)  
GIS Databases:  
- Northam 1m Orthomosaic - DLI 12/03  
- Cadastre - DLI 1/12/05

**(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 no known Declared Rare Flora within 10 km of the proposed clearing.

**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 likely to be at variance to this Principle**

There are 2 known TECs within a 10 km radius of the proposed clearing. The nearest recorded TECs are located approximately 6.3km east, north-east and 6.7km north-east of the proposed area and occurring in association with fringing vegetation of the Dale River.

It is therefore unlikely that the vegetation proposed to be cleared comprises the whole or part of or is necessary for the maintenance of a TEC.

**Methodology** GIS Databases:  
- Threatened Ecological Community Database - CALM 12/04/05  
- Environmentally Sensitive Areas - DOE 08/03/05

**(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 State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Department of Natural Resources and Environment 2002, EPA 2000). Vegetation complexes in the area under application are below the recommended minimum of 30% representation.

	Pre-European (ha)*	Current extent (ha)*	Remaining (%)*	Conservation*** status	In reserves/CALM managed land
IBRA Bioregions					
- Avon Wheatbelt***	9 578 995	1 536 296	16.0	Vulnerable	
- Jarrah Forrest	4 544 335	2 665 480	58.7	Least Concern	
Shire of Beverley	239 896	76 566	31.9	Depleted	
Vegetation type:					
Beard: Unit 4	1 247 834	292 993	23.5	Vulnerable	14.8
Beard: Unit 352	874 652	133 255	15.2	Vulnerable	3.0
Mattiske:					
Michibin Complex	1 345 524	356 512	26.5	Vulnerable	

\* (Shepherd et al. 2001)

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

\*\*\* Within the Intensive Landuse Zone

Given the proposed clearing of 0.2ha is relatively small compared to the area of remnant vegetation remaining within the Regions and the disturbance from ongoing road maintenance of the area to be cleared, the vegetation proposed to be cleared is not likely to be significant as a remnant of native vegetation in the surrounding area.

**Methodology** Department of Natural Resources and Environment (2002)  
EPA (2000)  
Hopkins et al. (2001)  
Shepherd et al. (2001)  
Mattiske Consulting (1998)  
GIS Databases:  
- Pre-European Vegetation - DA 01/01  
- 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 at variance to this Principle**

The nearest watercourse is a minor perennial watercourse approximately 200m to the east of the area under application. The watercourse flows from west to east into a tributary of the Dale River. However, the vegetation proposed to be cleared is not growing in or associated with a watercourse or wetland.

**Methodology** GIS Databases:  
- Hydrography, linear - DOE 01/02/04  
- Northam 1m Orthomosaic - DLI 12/03

**(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 landform of the area under application and surrounds can be described as rolling to hilly with some steep slopes, with gneissic rock outcrops common. The chief soils are hard red soils and hard, and sandy, yellow mottled soils containing ironstone gravels.

With an average annual rainfall of 500mm and an average annual evaporation rate of 1,900mm there is little surface flow during normal seasonal rains, reducing the likelihood of water erosion.

Given the small size of the area under application (0.2ha), the previous history of disturbance in the area from ongoing road maintenance and the soil types it is unlikely that the proposed clearing will cause any further significant land degradation.

**Methodology** GIS Databases:  
- 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**

There are two conservation reserves within 15km of the area under application, including Wandoo National Park approximately 8km west, north-west of the area under application and Wills Nature Reserve 15km south, south-west.

Given that the small area under application (0.2ha) is sufficiently distanced from the nearby nature reserves it is unlikely that the clearing as proposed would have an impact on the environmental values of the nearby conservation reserves.

**Methodology** Shepherd et al. (2001)  
Hopkins et al. (2001)  
GIS databases:  
- CALM Managed Lands and Water - CALM 01/07/05

**(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**

With an average annual rainfall of 500mm and an annual evaporation rate of 1,900mm there is likely to be little surface flow during normal seasonal rains. It is only during major rainfall events that there would be significant surface flows. The Dale River within the Main Avon Catchment becomes a medium for the collection and transportation of the major flows.

With high annual evaporation rates and low annual rainfall there is little recharge into regional groundwater table, which at this site is between 14,000 mg/l and 35,000 mg/l and is considered to be high saline to hyper-saline. The proposed clearing of native vegetation (approximately 10-12 trees) is unlikely to have an impact on regional groundwater considering the small size of the proposal and the magnitude of the Yilgarn-Southwest Groundwater Province (~246,000 sq km).

- Methodology** GIS Databases:
- Evaporation Isoleths - BOM 09/98
  - Isohyets - BOM 09/98
  - Groundwater Salinity, Statewide - 22/02/00
  - Hydrography, linear - DOE 01/02/04
  - Groundwater Provinces - WRC 98
  - Hydrographic Catchments, Catchments - DOE 23/03/05

**(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**  
 With an average annual rainfall of 500mm and an annual evaporation rate of 1,900mm there is little surface flow during normal seasonal rains. Given the small scale of the proposed clearing (approximately 10-12 trees), it is unlikely to cause or exacerbate the incidence or intensity of flooding.

- Methodology** GIS Databases:
- Evaporation Isoleths - BOM 09/98
  - Isohyets - BOM 09/98
  - Hydrography, linear - DOE 01/02/04
  - Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**  
 The area under application is within the Proclaimed Surface water Area of the Avon River Catchment. Therefore any abstraction of surface water would require a licence. However, considering this application is only for road construction or maintenance, no licence will be necessary.  
 There is no other RIWI Act Licence, Works Approval or EPA Act Licence that affects the area under application.  
 The proposed clearing is within a road reserve that is vested with the Shire of Beverley. As the proposed clearing is consistent with the purpose of the vesting and the Shire is exercising a statutory power the granting of a clearing permit constitutes a secondary approval and is not a future act under the Native Title Act 1993.

- Methodology** GIS databases:
- Cadastre - DL1 1/12/05
  - RIWI Act, Groundwater Areas - WRC 13/06/00
  - RIWI Act, Surface Water Areas - WRC 18/10/02

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	0.2		Assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that a 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.

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.

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.

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)

