



1. Application details

1.1. Permit application details

Permit application No.: 2216/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Beverley

1.3. Property details

Property: ROAD RESERVE (YORK, SHIRE OF)
 ROAD RESERVE (TALBOT WEST 6302)
 Local Government Area: Shire Of Beverley & Shire Of York
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.3		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: 352 Medium woodland; York gum	The proposal is to clear 0.3 hectares of native vegetation over three areas totalling approximately 471m of road reserve for the reconstruction and maintenance of Talbot West Road. The proposed clearing involves the removal of vegetation to allow road construction and realignment.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the native vegetation under application was sourced from the Site Inspection (2008). The conditions of all three areas were considered as degraded.
Mattiske Vegetation Complexes: Michibin (Mi) 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.	The vegetation under application comprises Eucalyptus wandoo, Acacia acuminata and Allocasuarina spp. over an understorey predominantly limited to invasive non-native grass species (Site inspection 2008).		
Williams (Wi) Mixture of woodland of Eucalyptus rudis-Melaleuca raphiophylla, low forest of Casuarina obesa and tall shrubland of Melaleuca spp. on major valley systems in arid and perarid zones (Mattiske 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 vegetation under application is considered to be in a degraded condition and is contained within a narrow, linear road reserve (Site inspection 2008). The vegetation within the applied areas comprises Eucalyptus wandoo, Acacia acuminata and Allocasuarina spp. over an understorey predominantly limited to invasive non-native grass species (Site inspection 2008).

The vegetation under application is limited to 0.3 hectares contained within three different sections in the Talbot West Road reserve. There is a lack of understorey within the areas under application (Site Inspection 2008) which would limit the habitat potential in these localities for ground dwelling fauna species, such as the Western Brush Wallaby and the Woylie.

Given that the vegetation under application is in degraded condition with low species diversity and has extensive weed infestation, it is not considered likely to comprise a high level of biodiversity.

Methodology Reference:
-Site Inspection (2008)
GIS Databases:
-SAC BIO datasets 08012008

(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

Within the local area (20km radius) there have been 8 recorded occurrences of significant fauna species including:

- Australian Bustard (*Ardeotis australis*, P4) 16km southeast 2005
- *Ixalodectes flectocercus* (*Ixalodectes flectocercus*, P1) grasshopper 19km east in 1896
- Shield-backed Trapdoor Spider (*Idiosoma nigrum*, VU) 18km east in 1954
- Water-rat (*Hydromys chrysogaster*, P4) 13km northeast
- Western Brush Wallaby (*Macropus irma*, P4) 19km east in 1954
- *Westralunio carteri* (*Westralunio carteri*, P4) mollusc 13km northeast
- Woylie (*Bettongia penicillata ogiby*, P5) 18km southwest

The vegetation within the applied areas comprises *Eucalyptus wandoo*, *Acacia acuminata* and *Allocasuarina* spp. over an understorey predominantly limited to invasive non-native grass species (Site inspection 2008). The vegetation under application is in degraded condition (Site inspection 2008).

The vegetation under application is limited to 0.3 hectares contained within three different sections in the Talbot West Road reserve. There is a lack of understorey within the areas under application (Site inspection 2008) which would limit the habitat potential in these localities for ground dwelling fauna species, such as the Western Brush Wallaby and the Woylie. The northern most area does contain a mature wandoo with a hollow. However, the hollow is unlikely to have sufficient girth to be utilized by Carnaby's black cockatoos.

Given the small size (0.3ha) and the degraded condition of the vegetation under application it is considered not likely the applied areas comprise the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Methodology References:
- Site Inspection (2008)
GIS Databases:
- SAC BIO datasets 08012008

(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 records of DRF in the local area (10km radius). The closest DRF, *Lechenaultia laricina* is located 15km south west of the applied area. According to Brown et al (1998) *L. laricina* is confined to a few small populations in the Northam-Beverley area and is found in white sand over laterite next to winter-wet seepage areas in open woodland of flooded gum (*E.rudis*) and wandoo (*E.wandoo*). *L. laricina* occurs in different soils and vegetation complex than the vegetation in the areas under application.

Given the distance of the nearest DRF and the fact that the DRF occurs within different soils and a different vegetation complex than that of the applied areas it is considered that the vegetation under application is not likely to include of be necessary for the continued existence of rare flora.

Methodology Reference:
- Brown et al (1998)
GIS Databases:
- Mattiske Vegetation- CALM 24/03/98
- Pre-European Vegetation- DA 01/01
- SAC Bio Datasets- 08012008
- Soils, Statewide- DA 11/99

(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 occurrences of Threatened Ecological Communities (TEC) within the local area (20km radius). The closest TEC is located approximately 65km west of the applied area and is associated with Eucalyptus calophylla - E. marginata woodlands on sandy clay soils of the southern Swan Coastal Plain.

Given that the vegetation under application is found in the Wheatbelt and comprises Eucalyptus wandoo woodlands associated with hard red soils, and that the nearest TEC is found on the Swan Coastal Plain and is associated with a different land form, it is not considered likely that the vegetation under application comprises, or is necessary for the maintenance of a TEC.

Methodology Reference:
 - Site Inspection (2008)
 GIS Databases:
 - SAC BIO Datasets -07012008
 - Soils, Statewide - DA 11/99

(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 vegetation within the areas under application is identified as a component of Mattiske vegetation complexes Michibin (Mi) and Williams (Wi), and Beard vegetation association 352, which have current representation levels of 26.5%, 20.5% and 16.6% respectively.

The areas of vegetation under application are located within the Intensive Land Use Zone (Shepherd et al 2001) within the area defined in EPA position statement No. 2 (EPA 2000). EPA position statement No. 2 (EPA 2000) states that 'clearing and consequently salinity are having a devastating effect on biodiversity through the direct loss of plant species, and the associated loss of mammals, birds and other animals which depend on sufficiently large areas healthy bush for food and shelter?.'

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 (Commonwealth of Australia 2001). The Mattiske vegetation complexes and the Beard vegetation association in the areas under application are below the recommended minimum of 30% representation.

While the representation figures are below the recommended 30% target, the small amount of clearing is not likely to be significant due to the thin narrow nature and the degraded vegetation condition of the areas under application.

	Pre-European (ha)	Current extent Remaining (ha)	(%)	In secure tenure (%)
IBRA Bioregions				
- Jarrah Forrest*	4,506,764	2,426,079	53.8	39.2
- Avon Wheatbelt*	9,517,117	1468711	15.4	9.4
Shire of Beverley*	239,896	76,566	31.9	
Shire of York*	214,963	66,264	30.8	
Vegetation type:				
- Beard 352*:	724,296	119,957	16.6	1.7
Mattiske Veg Complex:				
Minchibin (Mi)**	1,345,524	356,512	26.5	
Williams (Wi)**	234,849	119,957	16.6	
Shepherd (2006)*				
Mattiske (1998)**				

Methodology References:
 - Commonwealth of Australia (2001)
 - Shepherd (2006)
 - Shepherd et al (2001)
 - EPA (2000)
 GIS Databases:
 - EPA Position Paper No 2 Agriculture Region - DEP 12/00
 - Mattiske Vegetation- CALM 24/03/98
 - 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 no wetlands recorded within a 10km radius of the areas under application. The closest watercourse is a tributary of Talbot Brook located approximately 40m north of the northern most applied area.

Given the distance to the nearest watercourse, and that no wetland dependant vegetation was observed during the site visit, the vegetation under application is not considered likely to have vegetation growing in, or in association with an environment associated with a watercourse or wetland.

Methodology Reference:
- Site Inspection (2008)
GIS Databases:
- Hydrography, linear- DOE 01/02/04

(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

The soils within the areas under application are described as hard red soils (Northcote et al, 1968). These soils are generally associated with a low risk of salinity, with the exception of a small 30m section in the northern most area under application which has a high risk of salinity. Given the narrow, and limited size of the areas under application (0.3ha), which are located in three different sections along Talbot West Road, it is not considered likely that the proposal would have an appreciable impact on salinity on or off site.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water erosion. The areas under application are adjacent to existing roads, which already include road side infrastructure, such as table drains and culverts, to prevent land degradation associated with roads (Site inspection 2008).

Given the areas under application have a generally low salinity risk and already include infrastructure to prevent land degradation it is considered not likely that the proposed clearing would result in appreciable land degradation.

Methodology Reference:
- Northcote et al (1968)
- Site Inspection (2008)
GIS Databases:
- Salinity Risk LM 25m - DOLA 00
- 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 is one conservation reserve located within the local area (10km radius). Wandoo National Park is located 2.2km west of the areas under application (also identified as a system 6 conservation reserve).

The areas under application are situated in a landscape which has been extensively cleared for agriculture and have been isolated from local conservation reserves. The areas of vegetation within the areas under application, are thin and linear in nature, and are in a degraded condition. Aerial photography of the Shire of Brookton indicates the road reserves under application are not likely to provide ecological linkages to or between nearby conservation reserves.

Given the small size of the areas applied to be cleared and the distance to the nearest conservation reserve, the clearing as proposed is unlikely to impact on the environmental values of any adjacent or nearby conservation areas

Methodology GIS Databases
- DEC Managed Lands and Waters- CALM 1/07/05
- Northam 1 Orthomosaic DLI 12/03
- System 6 Conservation Reserves

(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

There are no wetlands recorded within a 10km radius of the areas under application. The closest watercourse is a tributary of Talbot Brook located approximately 40m north of the northern most applied area. The applied areas are situated within the Talbot Brook Catchment Area, but are not located within a Public Drinking Water Source Area.

The areas under application are generally associated with a low salinity risk, with the exception of a small portion in the northern most area which has a high risk of salinity.

Soils within the area under application generally have a low risk of land degradation; however the removal of vegetation from the identified soils may result in water erosion. The areas under application are adjacent to existing roads, which already include road side infrastructure, such as table drains and culverts, to prevent land degradation associated with roads (Site inspection 2008). Given this, and the distance to the nearest watercourse, it is not considered likely that the proposed clearing would cause water erosion resulting in deterioration in surface water quality.

Methodology Reference:

- Site Inspection (2008)
- GIS Databases:
 - Geodata, Lakes- GA 28/06/02
 - Hydrography, linear - DOE 01/02/04
 - Public Drinking Water Source Areas (PDWSAs) DOW
 - Soils, Statewide - DA 11/99

(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

Given the relatively small areas under application and that the applied areas are devoid of native understory vegetation, it is considered unlikely that the proposed clearing on peak flood height and duration. Therefore the proposed clearing is considered not to be at variance to this Principle

Methodology GIS Databases:

- Cadastre - DLI 1/12/05
- Hydrography, linear - DOE 01/02/04

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

Comments

The areas of vegetation under application are located within the Intensive Land Use Zone (Shepherd et al 2001) within the area defined in EPA position statement No. 2 (EPA 2000).

The areas under application are within the Proclaimed Surface Water Area of the Talbot Brook Catchment Area. 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.

The Shire of York (2007) has given written authorisation and supports the proposed clearing within the areas under application.

There is no Native Title Claim over the areas under application.

There is no required RIWI Act Licence or Works Approval that affects the areas under application.

There are no Aboriginal Sites of Significance listed within the area under application.

Methodology The area under application is zoned Road under Town Planning Scheme No 2.

References:

- EPA (2000)
- Shepherd et al (2001)
- Shire of York (2007)
- GIS databases:
 - Aboriginal Sites of Significance- DIA 28/02/03
 - Native Title Claims
 - RIWI Act, Surface Water Areas - WRC 18/10/02
 - Town Planning Scheme Zones - MFP 8/98

4. Assessor's comments

Purpose	Method Applied	area (ha)/ trees	Comment
Road construction or maintenance	Mechanical Removal	0.3	The assessable criteria have been addressed and the clearing as proposed is not likely to be at variance to any of the clearing principles.

5. References

- Brown A., Thomson-Dans C. and Marchant N., (1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, 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.
- 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.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- 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.
- Shire of York (2007) Fax- Written authorisation for the Shire of Beverley to undertake clearing within road reserve. TRIM Ref DOC42524.
- Site Inspection (2008) Site Inspection Report, Department of Environment and Conservation (DEC), Western Australia, TRIM Ref DOC44865.

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)