



1. Application details

1.1. Permit application details

Permit application No.: 1570/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Bridgetown -Greenbushes

1.3. Property details

Property: ROAD RESERVE (BRIDGETOWN 6255)
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Local Government Area: Shire Of Bridgetown-Greenbushes

Colloquial name: Dreyfus Street

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.5		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 3 - Medium forest; Jarrah - Marri (Hopkins et al. 2001; Shepherd et al. 2001).	The proposal includes clearing of 0.5ha along a road reserve.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation condition established through aerial photography: Very few native species, limited understorey and weed invasion.
Mattiske Vegetation Complex Balingup Slopes (BL) - Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla on slopes and woodland of Eucalyptus rudis on the valley floor in the humid zone (Mattiske Consulting 1998).	From aerial mapping, the vegetation under application consists of approximately 30-40 mature native trees within a 0.5ha area.		
Hedde Vegetation Complex - Bridgetown Complex: Open forest of jarrah-marri (Hedde 1980).			
Hedde Vegetation Complex - Dwellingup/Hester Complex: Open forest of jarrah-marri (Hedde 1980).			

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**

From aerial photography, the area under application is Completely Degraded (Keighery 1994) consisting of mature trees, with little understorey and possible weed invasion.

Land surrounding the road has been developed, possibly impacting on the condition of vegetation and reducing vegetation links to other areas of high biodiversity.

Due to its degraded condition and lack of species diversity, the area proposed to be cleared is not considered to hold a high level biological diversity; thus the proposal is not likely to be at variance to this Principle.

Methodology Keighery (1994);
GIS Database:
- Bridgetown Dinninup 50cm Orthomosaic - DLI03

(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 0.5ha roadside vegetation consisting of mature trees with little understorey, and possible weed invasion.

Although the area under application may provide habitat for some fauna species, it is unlikely to be significant due to the lack of vegetation structure and vegetation links to other bush remnants, and the close proximity to the existing road. To offset the clearing, revegetation of an equivalent area will be imposed on the permit as a condition.

Due to the size and structure of the vegetation under application it is not likely the proposed clearing will have a significant impact on fauna populations in the local area.

Methodology Keighery (1994);
GIS Database:
- Bridgetown Dinninup 50cm Orthomosaic - DLI03

(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 Declared Rare Flora (DRF) in the local area (10km radius) and only one Priority 1 Flora species, *Carex Tereticaulis* recorded 5.5km from the proposed clearing.

Due to the Completely Degraded (Keighery 1994) condition of the vegetation, distance between the area proposed to be cleared, recorded flora in the local area, and the lack of vegetation links it is unlikely the proposed clearing will have a significant impact on the existence of priority flora in the local area.

Therefore is it unlikely this proposal is at variance with this principal.

Methodology Keighery (1994);
GIS Databases:
Declared Rare and Priority FLora List - CALM 13/08/03

(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 Plant Communities (TPC) or Threatened Ecological Communities (TEC) within the local area (10km radius) of the proposed clearing.

Due to the environment of the proposed clearing (roadside), it is considered unlikely that any TEC occurs within the area under application; thus the proposal is not at variance to this Principle.

Methodology GIS databases;
- Threatened Ecological Communities - CALM 15/7/03
- 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 may be at variance to this Principle

The application is located in the Jarrah Forest Bioregion in the Shire of Bridgetown-Greenbushes. The extent of native vegetation in these areas is 58.3% and 67.9% respectively (Shepherd et al. 2001).

The vegetation of the area applied to clear is a component of Beard Unit 3 (Hopkins et al. 2001) of which there is 72.1% (Shepherd et al. 2001) of the pre-European extent remaining, and therefore of 'least concern' status for Biodiversity Conservation (Department of Natural Resources and Environment 2002).

The vegetation of the area applied to clear is also a component of Mattiske Balingup Slopes (Mattiske 1998) of which there is 24.0% (Shepherd et al. 2001) of the pre-European extent remaining, and therefore of 'vulnerable' status for Biodiversity Conservation (Department of Natural Resources and Environment 2002). To offset the low representation of this vegetation complex, an offset condition requiring revegetation of an equivalent area will be imposed on the permit.

The vegetation of the area applied to clear is also components of Heddle Bridgetown and Dwellingup and Hester Complexes (Hopkins et al. 2001) of which there is 32.4% and 89.2% (Shepherd et al. 2001) of the pre-European extent remaining.

Due to the scale of the proposed clearing and the degraded condition of the vegetation, the proposal is unlikely to be at variance to this Principle.

Methodology GIS databases:

- Mattiske Vegetation - CALM 24/3/98
- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01
- Bridetown Dinninup 50cm ORTHOMOSAIC - DLI03

(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 EPP Areas, EPP Lakes, RAMSAR wetlands, ANCA wetlands or Geomorphic wetlands within the local area (10km radius) of the proposed clearing.

A watercourse is located 250m east of the property and the Blackwood River is located approximately 1.7km South of the proposed clearing, however neither of these watercourses are directly associated with the area under application.

It is considered the clearing of 0.5ha of roadside vegetation is unlikely to impact on local watercourses or wetlands; therefore the proposal is unlikely to be at variance to this Principle.

Methodology GIS databases:

- ANCA, Wetlands - CALM 08/01
- EPP Areas - DEP 06/95
- EPP Lakes - DEP 28/07/03
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04
- Geomorphic Wetlands, Augusta to Walpole - DoE 18/6/03
- Hydrography Linear - DoE 1/2/04
- RAMSAR, Wetlands - CALM 21/10/02

(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 area proposed to be cleared has no known Acid Sulphate Soils risk, a low salinity risk and a groundwater salinity of 500-1000mg/L.

Due to the scale of the proposed clearing, appreciable land degradation is unlikely to occur.

Methodology GIS databases:

- Acid Sulphate Soil Risk Map, SCP - DoE 01/02/04
- Salinity Risk LM 25m - DOLA 00
- Groundwater Salinity, Statewide - 22/02/00

(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

Several DEC-Managed Lands are located within the local area (10km radius); an un-named Nature Reserve located 1.8km North & West of the area under application and the Yornup State Forest is located 2.9km South of the proposed clearing.

Due to the scale of the proposed clearing, it is unlikely to impact on environmental values of nearby conservation areas; therefore the proposal is unlikely to be at variance to this Principle.

Methodology GIS database:

- CALM Managed Lands and Waters - CALM 1/06/04
- Register of National Estate - EA 28/01/03
- System 6 Conservation Reserves - DEP 06/95
- System 1-5 and 7-12 Areas - DEP 06/95
- ORTHOMOSAIC

(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 area proposed to be cleared is within the Hardy Estuary - Blackwood River Catchment Area. A low salinity risk has been mapped for the area under application, and is not within a proclaimed surface water area under the Rights in Water and Irrigation Act 1914.

Given the small size of the proposed clearing, degradation of local water quality is unlikely to occur.

Methodology GIS Databases:

- Hydrographic Catchments, Catchments - DoE 17/11/05;
- Public Drinking Water Source Areas (PDWSAs) - DOE 29/11/04;
- RIWI Act Ground Water Areas - WRC 13/06/00;
- RIWI Act Surface Water Areas - WRC 18/10/02

(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

Flooding impacts are unlikely to occur as a result of the proposed clearing due to its small scale. It is considered that the removal of vegetation from the site would have minimal impact on peak flood height or duration; therefore the proposal is unlikely to be at variance to this Principle.

Methodology GIS databases:

- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The area is zoned Road Reserve in the Town Planning Scheme.
No submissions have been received.

No other EP Act or RIWI Act approvals are associated with the proposed clearing.

Methodology

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Road construction or maintenance	Mechanical Removal	0.5	Assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends the permit be granted, subject to revegetation conditions.

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.
- Havel, J.J. and Mattiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In

Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
 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.
 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
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)

