



1. Application details

1.1. Permit application details

Permit application No.: 1371/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Town of Kwinana

1.3. Property details

Property: ROAD RESERVE (KWINANA BEACH 6167)

ROAD RESERVE (KWINANA (T))

ROAD RESERVE (POSTANS 6167)

ROAD RESERVE (KWINANA BEACH 6167)

Local Government Area: Town Of Kwinana

Colloquial name:

1.4. Application

Clearing Area (ha)

No. Trees

Method of Clearing

For the purpose of:

0.1

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
Heddlle Vegetation Complex:	The vegetation under application consists of 0.1 hectares located directly adjacent to Rattcliffe Road, Kwinana Beach. Vegetation within the road reserve varies in condition from completely degraded to degraded condition, and consists primarily of four native species, <i>Acacia saligna</i> , <i>Macrozamia reidii</i> , <i>Xanthorrhoea preissii</i> , and <i>Acacia pulchella</i> , and two non-natives, <i>Pennisetum setaceum</i> (Fountain Grass) and an exotic tea-tree species. The application also includes one large <i>Eucalyptus</i> located towards the northern end of the road reserve and one <i>Agonis flexuosa</i> .	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing description based on a site inspection conducted 29 August 2006.
Cottesloe Complex - Central & South: Mosaic of woodland of <i>E. gomphocephala</i> and open forest of <i>E. gomphocephala</i> - <i>E. marginata</i> - <i>E. calophylla</i> ; closed heath on the Limestone outcrops.			
Beard Vegetation Association: 998: Medium woodland; Tuart			

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 area under application comprises 0.1 hectares of vegetation considered to primarily be in a completely degraded condition, having been impacted through historic clearing and containing numerous exotic species. Given the low species diversity, and the applied areas proximity to relatively large well vegetated reserves, it is not considered likely that the applied area is representative of an area of high biodiversity in the local area.

Methodology Site inspection (29/08/2006)

(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 clearing proposed consists of a relatively narrow linear strip of vegetation totalling 0.1 hectares in size. The high level of disturbance at this site, close proximity to the Rattcliffe Road, extensive weed invasion and limited diversity of native species suggests the original biodiversity and habitat values have been significantly compromised. The vegetation is therefore unlikely to provide a significant habitat for indigenous fauna.

Methodology Site inspection (29/08/2006)
GIS Database: Swan Coastal Plain South 1m Orthomosaic - DLI 01/04

(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 or Priority flora species located within the vegetation under application. The nearest DRF or priority species are located approximately 4 kilometres to the east, and are associated with different landform and vegetation communities to the applied area. Given this, and the degraded condition of the vegetation under application, it is considered that the proposed clearing is unlikely to be at variance to this principle.

Methodology DEC Site visit
GIS database:
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 no known Threatened Ecological Communities (TEC) within the vegetation under application. The nearest TEC to the applied area 1.7km to the north-east and 3.9km to the south-west. TEC associated with the Spearwood and Quindalup Dune systems are 26a *Melaleuca huegelii* 'Melaleuca acerose shrublands on Limestone ridges' and 30a 'Callitris preissii and/or Melaleuca lanceolata forests and woodlands' (Government of Western Australia 2000).

The vegetation under application was observed during the site inspection is consistent with 'Cottelsoe Complex - Central and South', comprising generally of an open woodland of *Eucalyptus* sp., with the area under application primarily containing *Acacia pulchella* and an exotic tea-tree species. Based on the vegetation type and condition, it is not considered likely to be representative of either TEC. The proposed clearing is therefore considered unlikely to be at variance to this principle.

Methodology Site inspection (29/08/2006)
Government of Western Australia (2000)
GIS Database:
Hedde Vegetation Complexes - DEP 21/06/95
Threatened Ecological Communities - CALM 12/4/05

(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 vegetation under application is part of Beard vegetation association 998 of which there is 35.9% remaining (Shepherd et al. 2002), and which is considered to be depleted for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation under application is also identified by Hedde et al. (1980) as 'Cottesloe Complex' central and south' of which there is 41.1% of pre-European vegetation remaining, and which is also considered to be depleted (Department of Natural Resources and Environment 2002).

On the basis that the Pre-European extent of the identified vegetation complexes meets the National Objectives for Biodiversity Conservation 2001-2005, being 30% of that present pre-1750, this proposal is not likely to be at variance to this Principle.

	Pre-European area (ha)	Current extent (ha)	Remaining %	Conservation status***	% in reserves/DEC-managed land
IBRA Bioregion	1,529,235	657,450	43.0*	Depleted	41.8
Hedde vegetation complex					
Cottelsoe Complex - Central and South	44,995	18,474	41.1%**	Depleted	8.8%
Beard vegetation associations					
998	51,094	18,320	35.9%*	Depleted	13.0%

* (Shepherd et al. 2001)

** (EPA, 2003)

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

Methodology DEC Site visit
Department of Natural Resources and Environment (2002)
EPA (2000)
Shepherd et al. (2001)
GIS Databases:

(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**
The nearest Conservation Category Wetland (CCW) is located approximately 2.4km to the southwest of the area under application, and the nearest Resource Enhancement wetland is located approximately 1.4km to the south.

Given the distance to the nearest waterbody, and that no wetland dependent vegetation was observed on site, it is not considered likely that the proposed clearing includes vegetation growing in, or in association with, a watercourse or wetland.

Methodology DEC site visit
GIS Database:
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
Hydrography, linear (hierarchy) y DOW

(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**
Soils within the area under application are identified as Spearwood S3 Phase, which comprise 'inter-dunal swales and depressions with gently inclined side slopes and deep rapidly drained siliceous yellow-brown sands', and Spearwood S2a phase, which comprise 'lower slopes of dune ridge with moderately deep to deep siliceous yellow-brown sands or pale sands with yellow-brown subsoils and minor limestone outcrops'. These soils are associated with a low risk of land degradation including erosion, salinity, acid sulphate soils and eutrophication (State of Western Australia 2005).

The vegetation under application comprises 0.1ha of roadside vegetation in a degraded condition. Given this, and the low risk of land degradation associated with the identified soils, the proposal is not considered likely to be at variance to this Principle.

Methodology DEC site visit
State of Western Australia (2005)

(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 a number of Bush Forever sites located within the local area (5km radius of the application), the nearest of which is located approximately 100m to the south. Based on the size, condition and type of vegetation under application it is not considered likely to contribute to ecological linkages to these reserves, or enhance their environmental values. The proposed clearing is therefore considered unlikely to be at variance to this principle.

Methodology Site inspection (29/08/2006)
GIS Databases:
Bushforever - MFP 07/01
CALM Managed Lands and Waters - CALM 1/07/05

(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**
Groundwater salinity in the local area is 500-1000 mg/L and there is a low to nil risk of Acid Sulphate Soils. The area under application is not located within a Priority 2 Public Drinking Water Source Area (PDWSA). Watercourses in the area include The Spectacles Wetlands, which are located approximately 3.7km to the west, and the coastal waterline, which is located approximately 4km to the west of the area under application.

The proposed clearing is adjacent to a road and includes 0.1ha of vegetation in a degraded condition. It is therefore not considered likely that the proposed clearing will cause deterioration in the quality of surface or underground water.

Methodology DEC site visit
GIS Databases:
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04
Groundwater Salinity, Statewide - 22/02/00

(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 not likely to occur as a result of the proposed clearing due to its size and location. The proposed clearing is 0.1 hectares of vegetation located within a road reserve. The area under application is located approximately 3.7km from The Spectacles Wetlands, at an elevation of between 20 - 25 metres. It is not considered likely that the removal of vegetation from site would have an impact on peak flood height or duration.

Methodology DEC site visit
GIS Databases:
Hydrography, linear (hierarchy) - DOW
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments
In a submission the Roadside Conservation Council (2006) advise they have no objections to the proposed clearing given the limited area, however weed control is suggested.

The Ratcliffe Road Reserve is part of a Native Title claim, however it is vested with the Town of Kwinana for that purpose and therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

Methodology Roadside Conservation Council submission (2006) TRIM ref. DOC2529
GIS Database: Native Title Claims - DLI 7/11/05

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	0.1	Grant	The assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the permit 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.

EPA (2003) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.

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.

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.

Roadside Conservation Council (2006) Submission. (DEC TRIM ref. DOC2529)

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.

State of Western Australia (2005) Agmaps Land Manager CD Rom.

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)

