



1. Application details

1.1. Permit application details

Permit application No.: 486/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: City of Rockingham

1.3. Property details

Property:
Local Government Area: City Of Rockingham
Colloquial name: Doghill Road Reserve

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.25		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: -999: Medium woodland; marri (Shepherd et al. 2001)	The proposal includes the clearing of 0.25 hectares of vegetation from the northern edge of the Doghill Road Reserve, for the purpose of constructing an access road to adjoining properties. Vegetation within this area appears to have been highly modified through past clearing activities, drainage construction, and subsequent weed invasion, now consisting primarily of a thin strip of shrubs which run parallel to the roadside drain.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing description based on information obtained from site inspection undertaken on 5/8/2005, and information obtained from the applicant.
Hedde Vegetation Complex: - Serpentine River Complex: Closed scrub of <i>Melaleuca</i> species and fringing woodland of <i>E. rudis</i> - <i>M. raphiophylla</i> along streams. (Hedde et al. 1980)	This vegetation consists of a closed scrub of <i>Melaleuca</i> spp. with an understorey of weeds and grasses.		

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**
Vegetation within the Doghill Road Reserve has been extensively altered through past clearing and drainage practises. Vegetation under application is limited to *Melaleuca* species with a weed and grass understorey. With the limited size of this application, and a relatively high number of reserves and vegetated areas present within close proximity, it is not considered that the application area is representative of higher biological diversity in the region.

Methodology Site inspection (5/9/2005)

(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 vegetation under application has been degraded through past clearing of the area, and associated edge effects. Vegetation currently present consists of *Melaleuca* spp., with a mixture of weed and grass species. The relatively narrow area and the lack of trees and logs present makes this area unlikely to contain significant habitat not well represented in surrounding areas.

Methodology Site inspection (5/9/2005)

(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

The local area, defined as a 5km radius surrounding the proposed site, contains 10 known populations of Declared Rare and/or Priority Flora, comprising of *Acacia lasiocarpa* var. *bracteolata* long peduncle variant, *Conostephium minus*, *Dillwynia dillwyniodes*, *Drakaea elastica*, *Caladenia huegelii* and *Aponogeton hexatepalus*. Of these both *Acacia lasiocarpa* var. *bracteolata* long peduncle variant and *Caladenia huegelii* are present within the same vegetation complex as that under application.

Based on the condition of the vegetation, limited species present in the area, and the highly modified environment of the existing road reserve, it is considered unlikely that the proposed clearing would be at variance to this Principle.

Methodology GIS Databases:
- Declared Rare and Priority Flora List - CALM 01/07/05
- Heddle Vegetation Complexes - DEP 21/06/95

(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 8 known Threatened Ecological Communities (TEC) present within the local area surrounding this application, defined as a 5 kilometre radius surrounding the application. None of the known TEC are present within the same vegetation complex under application.

Government of Western Australia (2000) identifies these known TEC as Floristic Community Types 19, 3a, and 3c. Taking into account the type of vegetation observed during the site inspection, the condition of the vegetation under application, and the TEC likely to be present in the area, this proposal is considered unlikely to be at variance to this principle.

Methodology Site inspection 05/08/2005
Government of Western Australia (2000)
GIS Database:
- Threatened Ecological Communities - CALM 12/04/05

(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 proposed to be cleared is defined as Beard vegetation association 999 (Shepherd et al. 2001) and Heddle vegetation complex 'Serpentine River Complex' (Heddle et al. 1980), of which have a representation of 11.8% and 10.6% respectively.

While these representation figures are below the 30% target recommended in the National Objective Targets for Biodiversity Conservation, the vegetation on site is in such a degraded condition, that it is unlikely to be representative of these communities.

Methodology Shepherd et al. (2001)
Heddle et al. (1980)
Department of Natural Resource and Environment (2002)
EPA (2000)
EPA (2003)
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 Proposal is not likely to be at variance to this Principle

The area under application is located approximately 200 metres from the Peel Main Drain, and 60 metres from the Maramanup Pool EPP Lake. Although not associated with any wetlands of a high conservation value the area under application is part of a large palusplain multiple use wetland.

Given the relatively small area of vegetation located within the road reserve area, it is considered that there will be no substantial alteration to the water table it is therefore unlikely that the clearing will impact hydrological function of the wetland.

Methodology Site inspection 05/09/2005
GIS Databases:

- Geomorphic Wetlands (Classification), Swan Coastal Plain - DOE 15/9/04
- EPP, Lakes - DEP 1/12/92

(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 vegetation under application exists within a highly modified unconstructed section of Doghill Road, Baldivis. This vegetation is considered to be within a degraded state, consisting of a relatively thin strip of Melaleuca spp. on the northern side of the Doghill Road Reserve. Due to the relatively narrow dimensions of the clearing, it is not expected that erosion would increase by any appreciable amount.

The area surrounding the applied vegetation falls within Class 2 risk of Acid Sulphate Soils (ASS) - Moderate to low risk of shallow ASS or PASS occurring (< 3m), but moderate to high risk of ASS or PASS occurring at greater than 3 metres from the soil surface. Vegetation clearing proposed by the applicant is not expected to impact on potential acid sulphate soils.

Based on the amount of vegetation proposed for removal, and the already degraded nature of the area under application, approval of this proposal is considered unlikely to appreciably impact on on-site or off-site land degradation.

Methodology Site inspection (5/9/2005)
GIS Database:
- Acid Sulphate Soil Risk Map, SCP - DOE 04/11/04

(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

The portion of the Doghill Road Reserve under application is located directly adjacent to the Bushforever Site 419: Maramanup Pool. Local to this applied area are three other Bushforever Sites, being located at an approximate distance of 2 kilometres to the north-west, north-east, and south-east. Vegetation within the road reserve does not provide linkage to other vegetated areas.

Based on the linear nature of the applied vegetation and its current condition, it is considered unlikely that the proposed clearing will impact on any nearby conservation areas.

Methodology GIS Databases:
- Bushforever - MSP 07/01
- CALM Managed Lands and Waters - CALM 01/08/04
- Register of the National Estate - EA 28/01/03
- Swan Coastal Plain South 1m Orthomosaic - DOLA 01/02

(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

Vegetation under application consists of a relatively small narrow strip of Melaleuca spp. along the northern edge of the Doghill Road Reserve. Based on the relatively small linear area of vegetation under application, it is considered unlikely that the proposed clearing will appreciably impact on the quality of surface or groundwater.

Methodology Site inspection (5/9/2005)

(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 modified area in which the vegetation clearing is proposed is known to be subject to seasonal inundation due to the heavy clay soils. Based on the limited amount and condition of vegetation to be removed, it is considered unlikely that the removal of vegetation will contribute to peak flood height or duration.

Methodology Site inspection (5/9/2005)

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

Comments

The City of Rockingham advise that clearing is intended to facilitate construction of the road access to properties currently without road frontage. The City of Rockingham also advise that drainage swales of the road reserves are to be rehabilitated with native sedges and rushes (*Isolepis nodosa* (also known as *Ficinia nodosa*), *Juncus pallidus*, *Baumea preissii*) to minimise erosion and provide nutrient stripping.

No further approvals are required from the Department of Environment.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	0.25	Grant	The assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the 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.
- 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.
- Keighery, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- 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)