



1. Application details

1.1. Permit application details

Permit application No.: 976/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: City of Wanneroo

1.3. Property details

Property: LOT 11139 ON PLAN 217410
Local Government Area: City Of Wanneroo
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.3		Mechanical Removal	Landscaping

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 6:Medium woodland; Tuart and jarrah (Hopkins et al. 2001, Shepherd et al. 2001)	The proposed clearing area is for the maintenance of a golf course driving range and further fragments the already partially cleared landscape.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The vegetation was recorded as being 'Completely Degraded' due to the sparsity of native shrub understorey, and the number of introduced grasses and herbs.
Hedde Vegetation ComplexKarrakatta Complex - Central and/ South; Predominantly open forest of E. gomphocephala - E. marginata - E. calophylla and woodland of E. marginata - Banksia species. (Hedde et al. 1980)	The predominant vegetation type is described as Eucalyptus marginata, Banksia attenuata, Allocasuarina fraseriana, and Xanthorrhoea preisii over mown parkland of introduced grasses and herbs. Various Australian native trees, including Callistemon viminalis, Agonis flexuosa, Corymbia citrodora, Eucalyptus heterophylla and Eucalyptus spp, also occur amongst the remnant vegetation in some areas. A number of native shrubs were recorded on site including; Hibbertia hypericoides, Hibbertia huegelii and Hypocalymma robustum. However these plants were in insufficient numbers to form a sustainable understorey layer. (City of Wanneroo, 2005)		(City of Wanneroo 2005)

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 of the area to be cleared is described as being 'Completely Degraded' (Keighery, 1994) due to the sparsity of native shrub understorey and the presence of a number of introduced grasses and herbs. Bush Forever sites 202 and 328 are located approximately 980m south-west and 135m east of the area respectively. Therefore, given the lack of understorey species, it is considered that the area under application would not consist of higher biological diversity than the nearby Bush Forever sites.

Methodology Keighery (1994)
GIS Databases:
- Bushforever - MFP 07/01

(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 to be cleared is within a golf course and thus the existing vegetation is scattered, disjointed and 'completely degraded' (City of Wanneroo, 2005) with limited connectivity with other vegetated areas. Therefore, it is unlikely that such an area is significant for the provision of faunal habitat, faunal movement, and ecological connectivity between surrounding areas.

Methodology City of Wanneroo (2005) (DoE TRIM ref: IN 24866)
GIS Databases:
- Swan Coastal Plain 40cm Orthomosaic - DLI 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 Declared Rare and Priority Flora species within or in close proximity to the proposal area. Due to the lack of understorey within the area under application (City of Wanneroo 2005), it is considered unlikely that any species of conservation significance would be present.

Methodology City of Wanneroo (2005) (DoE TRIM ref: IN 24866)
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 no Threatened Ecological Communities (TECs) mapped in the area under application. Three TECs are located within 500m of the subject area and are located in Bushforever site 328 which has been set aside for the conservation of biodiversity. It is considered that due to the lack of understorey present within the area under application (City of Wanneroo 2005), it is unlikely that the vegetation in this area is part of or is necessary for the maintenance of a TEC.

Methodology City of Wanneroo (2005) (DoE TRIM ref: IN 24866)
GIS Databases:
- Threatened Ecological Communities - CALM 12/4/05
- Environmentally Sensitive Areas - DOE 22/10/04
- Bush Forever - MFP 07/01

(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 clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment 2001, EPA 2000).

The vegetation within the area is mapped as Beard vegetation association 6 which has 18,398 hectares (or 23.3%) remaining (Shepherd et al. 2001, Hopkins et al 2001) and the Heddle vegetation complex Karrakatta Complex Central and/ South which has 14,729 hectares (29.5%) remaining (Heddle et al. 1980). Although these representations are below the 30% target, the vegetation of the area is described as 'Completely Degraded' and completely devoid of native understorey (City of Wanneroo, 2005). The vegetation proposed to be cleared, therefore is not considered to be a significant remnant of native vegetation within the broader surrounding environment.

Methodology City of Wanneroo (2005) (DoE TRIM ref: IN 24866)
Heddle et al. (1980)
Shepherd et al. (2001)
Department of Natural Resources and Environment (2001)
EPA (2000)
GIS Databases:
- Pre-European Vegetation - DA 01/01
- Bushforever - MFP 07/01

(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

The nearest wetland of significance (Lake Gooleal) is a Conservation Category Wetland, located approximately 1.3km north-west of the proposed area. There is also a small artificial earth dam within the proposal area, however it is only used for irrigation purposes. The species present within the area under application are not considered to be wetland or watercourse dependant, therefore the clearing as proposed is not likely to be at variance to this Principle.

Methodology GIS Databases:
- EPP, Lakes - DEP 28/07/03
- Geomorphic Wetlands (Mgmt Categories) - Swan Coastal Plain - DOE 15/09/04

(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 of the area comprise predominantly brown sands in an undulating dune landscape with some steep dune slopes. However, given the current landuse of the area under application (golf course), grass is already present thereby reducing the risk of significant land degradation. In addition, the clearing as proposed is scattered over 10.1ha which would also reduce the risk of significant land degradation on or off site.

Methodology GIS Databases:
- Acid Sulphate Soil risk map, SCP DOE 01/02/04
- 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

The Bushforever sites 202 and 328 are located approximately 980m east and 135m south-west of the proposed area. Given the scattered nature of the proposed clearing and the limited connectivity between the area under application and the surrounding Bush Forever sites, it is unlikely that the clearing as proposed would have a significant impact on these conservation areas.

Methodology GIS Databases:
- Bushforever - MFP 07/01
- System 6 Conservation Reserves - DEP 06/95

(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 under application is not located within a Public Drinking Water Source Area. Also, the area lies within a low salinity risk area (ie. <500mg/l). Due to a small and scattered nature of vegetation that is proposed to be cleared it is unlikely that the clearing will cause any deterioration in the quality of surface or underground water.

Methodology GIS Databases:
- Public Drinking Water Source Areas (PDWSAs) - DOE 29/11/04
- 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

Given the small and scattered nature of the vegetation proposed to be cleared, it is unlikely that the clearing will exacerbate the frequency or intensity of flooding.

Methodology GIS Databases:
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The area under application is held by the City of Wanneroo for the designated purpose of Recreation and Parklands, following approval from the Department of Land Administration on 18 August 1992 (DoE TRIM ref: IN24866).

The City of Wanneroo confirmed that the lake present between the areas applied to clear is to be made redundant and also confirmed that no planning approval would be required for the activities to be conducted.

There is no other RIWI Act Licence, Works Approval or EP Act Licence that will affect the area that has been applied to clear.

Methodology DOLA (1992) (DoE TRIM ref: IN24866)

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Landscaping	Mechanical Removal	3.3	Grant	The proposed clearing has been assessed and is not likely to be at variance with any of the clearing principles. Therefore, the assessing officer deems that a clearing permit be granted.

5. References

- City of Wanneroo (2005). Reconstruction of Driving Range and Surrounding Areas at Marangaroo Golf Course (DoE TRIM ref: IN 24866)
- 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.
- DOLA (1992). Land Act 1933 (Section 33 (2) - Vesting Order (DoE TRIM ref: IN 24866)
- 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.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. 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.
- 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)