



1. Application details

1.1. Permit application details

Permit application No.: 970/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Senior Environmental Consultant Cardno BSD Pty Ltd

1.3. Property details

Property: LOT 118 ON PLAN 28300
Local Government Area: City Of Wanneroo
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
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
Hedde vegetation complex - Cottesloe Complex Central and South: mosaic of woodland of Eucalyptus gomphocephala and open forest of E. gomphocephala, E. marginata, E. calophylla, closed heath on the limestone outcrops.	The area under application is for the widening of an existing haul road requiring the clearance of approximately 1ha of native vegetation. The existing track is approximately 4m wide and this is to be widened to 15m for a dual carriageway. Approximately 2000 square metres will be within the Bush Forever Site 323 and 65m of clearing will be within an Aboriginal Heritage Site. Upon completion of the upgrade of the waste disposal site on the property, the area under application will be rehabilitated and the road will return to its original 4m width.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Information related to the description of the vegetation to be cleared was obtained from supporting documentation provided by the proponent (DoE Trim Ref IN24781).
Hedde vegetation complex - Quindalup Complex: coastal dune complex consisting mainly of two alliances - the strand and foredune alliance and the mobile and stable dune alliance. Local variations include low closed forest of Melaleuca lanceolata, Callitris preissii and closed scrub of Acacia rostellifera. (Hedde et al 1980)	The vegetation under application consists of low Melaleuca systema (ms) and Lomandra maritima shrubland and low open forest of Banksia attenuata and Banksia menziesii woodland in moderate to poor condition. The remainder of the property, apart from the waste disposal site, is well vegetated and part of an east-west green belt.		The vegetation condition of 'good' was used in this application as the description of the vegetation in the supporting documentation was moderate to poor. As these are not within the Keighery (1994) scale used in this assessment, it was considered that 'good' would be the most appropriate level.
Beard vegetation association 1026: mosaic, shrublands, A. rostellifera, A. cyclops and M. acerosa heath.			
Beard vegetation association 998: medium woodland; tuart. (Shepherd et al 2001, Hopkins et al 2001)			

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 consists of a pre-existing road which is to be widened to accommodate heavy vehicle traffic. The vegetation proposed to be cleared has been described as being in a moderate to degraded condition. It is considered that the surrounding Bush Forever site would be of greater biodiversity than the area under application due to the pre-existing disturbance from the road.

Methodology Information provided by the proponent (DoE Trim Ref IN24781)
GIS Databases:
- Bush Forever - 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 under application is narrow and linear in shape as it is to facilitate the widening of an existing road. The vegetation under application has been described as being in a moderate to degraded state. Therefore its ability to provide suitable habitat for fauna could potentially be restricted. The remainder of the property (other than the waste disposal area) is to remain as bushland which provides a "green belt" running west to east from the coast to Neerabup National Park. It is considered that the vegetation that is to remain on other areas of the property would be of greater habitat value than the area under application. As such, the clearing as proposed is not likely to be at variance to this Principle.

Methodology Information provided by the proponent (DoE Trim Ref IN24781)

(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 entire property, including the area under application, has been surveyed for the presence of flora of conservation significance. No Declared Rare or Priority Flora were identified either within the area under application or the remaining property. Therefore it is considered that the clearing as proposed is not likely to be at variance to this Principle.

Methodology Information provided by the proponent (DoE Trim Ref IN24781)
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**
No Threatened Ecological Communities (TEC) are known to occur within the area under application or the remainder of the property. The nearest known occurrence of a TEC is 5km to the north, however this community occurs on a different vegetation type to those within the area under application. In addition, the vegetation proposed to be cleared is described as being in moderate to degraded condition. As such it is considered unlikely that the clearing as proposed is unlikely to be at variance to this Principle.

Methodology Information provided by the proponent (DoE Trim Ref IN24781)
GIS Databases:
- Threatened Ecological Communities - CALM 13/08/03
- Heddle Vegetation Complexes - DEP 21/06/95
- Pre-European Vegetation - DA01/01

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

The area under application consists of Heddle vegetation complexes Cottesloe Complex Central and South and the Quindalup Complex (Heddle et al 1980). The Beard vegetation associations of 1026 and 998 are also represented within the area under application (Shepherd et al 2001, Hopkins et al 2001). All of the vegetation associations have over 30% remaining (Heddle et al 1980, Shepherd et al 2001 and Hopkins et al 2001) and it is unlikely that the small area under application (1ha) would significantly impact the range and distribution of these vegetation communities.

Methodology Department of Natural Resources and Environment (2001)
EPA (2000)
Heddle et al (2001)
Shepherd et al (2001)
Hopkins 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

There are no wetlands, lakes or other water features within the area under application or the remainder of the property. As such the vegetation under application is not considered to be associated with a wetland or watercourse and is therefore not at variance to this Principle.

Methodology GIS Databases:

- Geomorphic Wetlands (Mgmt categories) - Swan Coastal Plain - DOE 15/09/04
- Hydrography, Linear - DOE 01/02/04
- EPP, Lakes - DEP 28/07/03

(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 area under application are siliceous sands that may be prone to soil erosion, especially given the proximity to the coast. The area under application is long and linear in shape, in addition the areas adjacent to the proposed clearing are well vegetated.

Given the above, as well as the small size of the area under application, it is considered unlikely that the proposed clearing would not cause significant on or off site land degradation.

Methodology GIS Databases:

- Soils, Statewide - DA 11/99
- Swan Coastal Plain North Orthomosaic 40cm - DLI 05

(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 area under application was thought to be located within Bush Forever site 323, however advice received from Bush Forever indicates that the proposed clearing is outside the boundary. The Bush Forever Office did suggest that the proponent prepare an Environmental Management Plan for the site; address, through on-going management, the weed invasion of the entire site; and that all works should be contained within the cadastral boundaries. A report entitled the Tamala Park Bushland Management Strategy and Recommended Works (Cardno BSD Pty Ltd 2005) has been submitted to the Department outlining the existing environment, rehabilitation works for 2006 and proposed weed control for the entire Tamala Park landfill site. In addition, the proponent has indicated that once the works have been completed on Stage 2 of the landfill site, the track will be rehabilitated, with endemic species, back to the original 4m width.

Neerabup National Park is located 500m to the north east of the proposed clearing. However it is considered that given the small size of the proposed clearing and the degraded vegetation under application, it is unlikely that the clearing as proposed would have a significant impact on these conservation areas.

Methodology Bush Forever Submission (2006) (DoE Trim Ref EI5259)

Cardano BSD Pty Ltd (2005) (DoE Trim Ref EI5390)

GIS Databases:

- Bush Forever MFP 07/01
- CALM Managed Lands and Waters - CALM 01/08/04

(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 surface water features within the area under application, nor are there any wetlands or lakes within the vicinity of the proposed clearing. Part of the area under application is located within the P3 area of the Perth Underground Water Pollution Control Area, however roads are an acceptable landuse within P3 areas.

Given the above, in addition to the narrow, linear shape of the area under application, it is unlikely that the clearing as proposed is at variance to this Principle.

Methodology Water Quality Protection Note - Land use compatibility in Public Drinking Water Source Areas

GIS Databases:

- Hydrography, Linear - DOE 01/02/04
- Geomorphic Wetlands (Mgmt categories) - Swan Coastal Plain - DOE 15/09/04
- Public Drinking Water Source Areas (PDWSAs) - DOE 09/08/05

(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

There are no surface water features within the area under application. In addition, due to the narrow, linear nature of the proposed clearing it is considered unlikely that the clearing as proposed would exacerbate the intensity or frequency of flooding.

Methodology GIS Databases:
- Hydrography, Linear - DOE 01/02/04

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

Comments

There is an Environmental Protection Act 1986 Licence extending over the site for a Class II Landfill (DoE Licence Number 6963/9).
The proponent has advised the DoE that approvals are being sought from the Department of Indigenous Affairs in relation to local Aboriginal heritage sites.
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

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or removal maintenance	Mechanical	1	Grant	<p>The proposal has been assessed and the clearing as proposed is not likely to be at variance to any of the Principles due to the small size and disturbed nature of the vegetation under application.</p> <p>The proposed clearing is to widen an existing road from 4m to 15m to allow heavy vehicle traffic. In granting this application, a condition to rehabilitate the track back to its original width at the conclusion of the works of Stage 2 Phase 2 of the Waste Disposal Area has been incorporated:</p> <ol style="list-style-type: none">1. The Permit Holder shall rehabilitate with local provenance species, each area cleared under this permit within 12 months after the Permit Holder completes construction works on Stage 2 Phase 2 of the Waste Disposal Facility.

5. References

Bush Forever (2006) Advice on land clearing proposal. Information provided to Department of Environment. DoE Trim Ref EI5259

Cardno BSD Pty Ltd (2005) Tamala Park Bushland Management Strategy Recommended Works for 2006. Prepared for Mindarie Regional Council. DoE Trim Ref EI5320

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.

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.

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)