



1. Application details

1.1. Permit application details

Permit application No.: 1310/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: GHD Pty Ltd on behalf of City of Rockingham

1.3. Property details

Property: LOT 101 ON DIAGRAM 59578 (House No. 21 COUNCIL ROCKINGHAM 6168)
LOT 9 ON PLAN 9740 (Lot No. 9 CENTRAL ROCKINGHAM 6168)
LOT 4 ON PLAN 22765 (House No. 44 CHALGROVE ROCKINGHAM 6168)
ROAD RESERVE (ROCKINGHAM 6168)
LOT 1511 ON PLAN 213615 (Lot No. 1511 LEGHORN ROCKINGHAM 6168)
LOT 1652 ON PLAN 41054 (ROCKINGHAM 6168)

LOT 800 ON PLAN 44879 (House No. 23 COUNCIL ROCKINGHAM 6168)
City Of Rockingham
Rockingham City Centre Transit Site

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		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 -Quindalup complex y Coastal dune complex consisting mainly of two alliances y the strand and fore-dune alliance and the mobile and stable dune alliance. Local variations include the low closed forest of Melaleuca lanceolata y Callitris preissii and the closed scrub of Acacia rostellifera.	The proposal includes the clearing of up to 2 hectares of native vegetation for road construction purposes. The vegetation under application is described by GHD (2006) as yshrubland dominated by Acacia rostellifera, A. saligna and Xanthorrhoea preissii with an understorey often including shrubs such as Jacksonia furcellata and groundcover such as Lepidosperma pubisquameum, with often forms dense patches. Most of the applied area is adjacent to the road and is void of vegetation or contains planted vegetation, however some remnants exist. Vegetation to the east of Chalgrove Ave (Site 10) comprises sparse Acacia sp. in a degraded condition. The strip between houses and carpark from Ako Lane to Chalgrove Ave (Site 9) and vegetation on Contest Parade north of Clifton St (Site 6) comprises mainly	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The vegetation description was obtained from a field survey conducted by GHD (2006) and from a site visit conducted on Tuesday 4 July 2006.
Beard Vegetation Association y 3048 y Shrublands; scrub-heath on Swan Coastal Plain			

X.preissii with some Acacia sp. in a degraded to completely degraded condition. Vegetation on Contest Pde (Site 5) is considered to be good to degraded. Vegetation at the intersection of Rae Rd and Ennis Ave (Site 1) comprises X.preissii in a degraded condition (DEC site visit 2006).

DEC site visit 4/7/06
GHD (2006)

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 under application is located in small isolated patches comprising mainly Acacia sp. and X.preissii in a completely degraded condition, having a limited understorey and extensive weed invasion. The area under application is therefore not likely to be self-sustaining into the future and is not likely to be representative of an area of outstanding biodiversity in the Bioregion or the local area.

Methodology DEC site visit 4/7/06

(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 applied area consists of small, isolated patches of vegetation located within road reserves and vacant lots, with no connectivity to larger areas of vegetation. The vegetation under application has a high level of disturbance and weed invasion, and is likely to have limited potential for fauna habitat. It is therefore not considered likely to provide significant habitat for indigenous fauna.

Methodology DEC site visit 4/7/06

(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 occurrences of Declared Rare or Priority Flora (DRF) within the local area (5km radius of the applied area). In addition, no threatened flora species were identified during a field survey conducted by GHD (2006), however the field survey was conducted in autumn, hence the presence of some ephemeral, annual or bulbous species cannot be assessed.

Although a spring survey was not conducted within the area under application, the vegetation under application is roadside vegetation and is in a completely degraded condition, and given the absence of DRF in the local area the proposal is not considered likely to impact DRF species.

Methodology GHD (2006)
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**

The vegetation under application is located approximately 2.4 kilometres southwest of the nearest known TEC. The Bush Forever study (Government of Western Australia, 2000) identifies possible TECs associated with the Quindalup Dune system in this landscape position as Callitris preissii and/or Melaleuca lanceolata forests and woodlands (30a). The vegetation under application is also considered to be in a completely degraded condition, comprising mainly Acacia sp. and X.preissii. Given this, and that no TECs were identified during the field survey conducted by GHD (2006) it is not considered likely that the proposed clearing will impact any TEC.

GHD (2006)
Government of Western Australia (2000)
GIS Databases:
Heddie Vegetation Complexes - DEP 21/06/95Threatened Ecological Communities - CALM 12/4/05

Methodology GHD (2006)
Government of Western Australia (2000)

(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 identified by Hedde et al. (1980) as Quindalup complex of which there is 47.1% of pre-European vegetation remaining, and which is considered to be depleted (Department of Natural Resources and Environment 2002). The vegetation under application is also part of Beard vegetation association 3048 of which there is 28.7% remaining (Shepherd et al. 2002), and which is considered to be vulnerable (Department of Natural Resources and Environment 2002). While these representation figures classify the vegetation complexes as depleted and vulnerable, the vegetation under application is in a completely degraded condition and is therefore not considered likely to be representative of these communities.

reserves/CALM-	Pre-European area (ha)	Current extent (ha)	Remaining %	Conservation status***	% in managed land
IBRA Bioregion - SCP	1,529,235	657,450	43.0%*	Depleted	
City of Rockingham	24,326	8,534	35.1%*	Depleted	
Beard vegetation associations 3048	14,575	4,184	28.7%*	Vulnerable	19.2%*
Hedde vegetation complex Quindalup Complex	38,238	18,000	47.1%**	Depleted	5.2

* (Shepherd et al. 2001)
 ** (EPA, 2003)
 *** (Department of Natural Resources and Environment 2002)

Methodology DEC Site visit 4/7/06
 Department of Natural Resources and Environment (2002)
 EPA (2000)
 Shepherd et al. (2001)
 GIS Databases:
 Hedde Vegetation Complexes - DEP 21/06/95
 Pre-European Vegetation - DA 01/01

(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**
 There are no wetlands mapped within the area under application, however approximately 0.08 hectares is located 5m to the northwest of a Conservation Category Wetland (CCW). Given the proximity of this area to the CCW it is considered likely to form part of the buffer for this wetland.

Although a portion of the area under application is located within the buffer to a CCW, this portion comprises only two Acacia sp. in a completely degraded condition and is likely to have limited buffering capacity from the adjacent urban land use. The proposal is therefore not considered likely to be at variance to this Principle.

Methodology DEC site visit 4/7/06
 GIS Database: Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE

(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 applied area are defined as deep calcareous sands with variable organic matter within the Quindalup south system. These sands are well drained and have a low risk of land degradation including erosion, salinity, eutrophication and acid sulphate soils (State of Western Australia 2005).

In addition, the Department of Agriculture and Food (DAFWA 2006) advise "the proposed clearing is unlikely to cause appreciable land degradation". Therefore the proposal is not considered likely to be at variance to this Principle.

Methodology DAFWA (2006)
 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

The nearest conservation area is a Bush Forever site located approximately 1.5km to the northeast of the applied area. Given the degraded condition and limited amount of vegetation under application it is not considered likely that the environmental values of any nearby conservation reserves will be impacted by the proposed clearing.

The Quindalup Complex currently has 5.2% (Heddie et al 1980) in secure tenure with JANIS (1997) recommending that 15% of the pre-1750 distribution of each vegetation ecosystem should be protected in a comprehensive, adequate and representative reserve system. Given that the vegetation under application is located in isolated fragments within an urban area, and is in a completely degraded condition, it is not considered likely to be of conservation value.

Methodology DEC site visit 4/7/06
Heddie et al. (1980)
Janis Forests Criteria (1997)
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

The area under application is not located within a Public Drinking Water Source Area (PDWSA) and the nearest watercourse is a drain located approximately 800m to the southwest of the southern portion of the applied area. Groundwater is at a depth of 3m below ground level, and there is a low risk of salinity and acid sulphate soils in the local area.

Based on this information, and given that the applied area is limited in size, the proposal is not considered likely to cause deterioration in the quality of surface or underground water.

Methodology DEC site visit 4/7/06
GIS Databases:
Acid Sulphate Soil Risk Map, SCP - DOE 04/11/04
Groundwater Salinity, Statewide - 22/02/00
Public Drinking Water Source Areas (PDWSAs) - DOE 07/02/06

(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 considered likely to occur as a result of the proposed clearing due to the size and location of the applied area. The applied area is located in small, isolated areas within an area of urban development. It is considered that the removal of vegetation from the site would have no impact on peak flood height or duration.

Methodology DEC site visit 4/7/06

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

Comments

The City of Rockingham (2006) advises of their support for the clearing permit application prepared by GHD (2006).

There is a Native Title Claim over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian newspaper constitutes legal notification of the native title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

GHD (2006) has advised that prior to clearing the site a contractor will be engaged to remove grass trees deemed suitable for transplanting and prepare them for reuse. The City of Rockingham will recover any grass trees not used in the project landscaping, and reused them elsewhere in the City.

Methodology City of Rockingham submission (2006)
GIS Databases:
Cadastre - DLI 1/12/05
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	2	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

- City of Rockingham submission (2006)
- DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref XXXXX.
- 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.
- GHD (2006) Rockingham City Centre Transit Centre Vegetation Assessment.
- 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.
- 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)

