



1. Application details

1.1. Permit application details

Permit application No.: 1207/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Glenwood Nominees Pty Ltd T/A Strategen (Strategen)

1.3. Property details

Property: LOT 126 ON PLAN 27460 (Lot No. 126 BEENYUP ATWELL 6164)
LOT 215 ON PLAN 226117 (Lot No. 215 TAPPER ATWELL 6164)
ROAD RESERVE (ATWELL 6164)

Local Government Area: City Of Cockburn

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.5		Mechanical Removal	Building or Structure

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 - 1001 - Medium very sparse woodland; jarrah, with low woodland; banksia and casuarina.	The proposal includes the clearing of 2.5 hectares of native vegetation for the development of a school.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation description obtained from Matiske (2006) and observations from the site visit on 1 June 2006.
Hedde Vegetation Complex - Bassendean Complex Central and South - Vegetation ranges from woodland of E.marginata - C.fraseriana - Banksia spp. to low woodland of Melaleuca species, and sedgeland on the moister sites.	The majority of the vegetation under application is woodland dominated by dense Kunzea glabrescens with the scattered Allocasuarina fraseriana, Banksia illicifolia, and B.attenuata. The understorey comprises Dasypogon bromeliifolius, Petrophile linearis, and Patersonia occidentalis. The western portion of the applied area is a narrow strip comprised primarily of Adenanthos cygnorum in a degraded to completely degraded condition.		

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 under application is primarily comprised of Kunzea glabrescens, with vegetation condition ranging from 'excellent' to 'completely degraded'. While it was identified that Quenda may utilise vegetation on-site for habitat, a survey conducted by Western Wildlife (2006) did not identify any individuals on site. The area under application is also considered unlikely to contain declared rare or priority flora.

Given the limited size, variable condition of the vegetation, and the proximity to nearby conservation reserves, it is not considered that the area under application is representative of an area of high biological diversity.

Methodology Site inspection 1/6/06
Western Wildlife (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

CALM (DoE TRIM ref: 2006I/771) indicates that the priority 5 species Quenda, is most likely to be present within the area. A survey targeted at Quenda was undertaken by Western Wildlife (2006), did not identify any Quenda which utilised the vegetation under application. It is therefore considered unlikely that the proposed clearing would be at variance to this Principle.

Methodology Western Wildlife (2006)

(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 27 known populations of Declared Rare Flora (DRF) and Priority Flora in the local area, defined as a five kilometre radius surrounding this application. Of these populations, 12 are present within the same Heddle vegetation complex as that under application, with the DRF consisting of *Caladenia huegelii* and *Drakaea elastica*, the closest example being *Caladenia huegelii*, located approximately 1.7 kilometre to the northwest.

Advice provided by CALM (DoE TRIM ref: 2006I/771) indicates that based on the flora survey conducted by Mattiske Consulting (2006), the documented vegetation communities, and geomorphology characteristics, there is a low likelihood of DRF *Caladenia huegelii* and or DRF *Drakaea elastica* being present on site.

It is therefore considered unlikely that the proposed clearing is at variance to this Principle.

Methodology Mattiske Consulting (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

There are no known occurrences of Threatened Ecological Communities (TEC) within the local area of the application and no TECs were observed during the site visit.

Given that the vegetation under application comprises primarily *Kunzea glabrescens* it is not considered likely to be representative of a TEC.

Methodology Site visit 1/6/06

GIS Database: 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 defined as Beard vegetation associations 1001 (Shepherd et al. 2001), which has a pre-European settlement representation of 24.6% and is considered vulnerable (Department of Natural Resources and Environment 2002). The applied vegetation is also defined as Heddle vegetation complex Bassendean Complex Central and South (Heddle et al. 1980) of which there is 27.0% of pre-European extent remaining and which is considered endangered (Department of Natural Resources and Environment 2002).

While these representation figures classify the vegetation complexes within the applied area as vulnerable and endangered, the vegetation on site consists primarily of *Kunzea glabrescens* and is not considered to be representative of these communities.

Methodology Site visit 1/6/06

Department of Natural Resources and Environment (2002)

EPA (2000)

Shepherd et al. (2001)

GIS Databases:

Heddle 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

The area under application is located within an ANCA wetland and is 25m to the west of a Resource

Enhancement Category (REC) wetland. The nearest Conservation Category Wetland is located approximately 630m to the southeast.

While the Water and Rivers Commission (2001) recommends a minimum buffer distance of 50m for wetlands, the nearby REC wetland has been completely modified by urban development, and thus the proposed clearing is considered not likely to adversely impact on wetlands functions. In addition, no wetland dependent vegetation was observed during the site visit and therefore the proposal is not considered likely to impact vegetation associated with wetlands.

Methodology Site visit 1/6/06
Water and Rivers Commission (2001)
GIS Databases:
Clearing Regulations - Environmentally Sensitive Areas - DOE 30/5/05
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE
Swan Coastal Plain North 40cm Orthomosaic - DLI 05

(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**
It is considered that the risk of water erosion is likely to be low due to the very low topographic relief and transmissive soils within the applied area. There is also a moderate to low risk of acid sulphate soils. There is a high salinity risk within the applied area, however given the relatively small size of the clearing, it is not likely to result in an increase in salinity.

Given that the applied area is relatively small in size and is surrounded by urban development, the proposed clearing is not considered likely to cause appreciable land degradation.

Methodology GIS Databases:
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04
Salinity Risk LM 25m - DOLA 00

(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 is located approximately 1.9km to the east of Thompsons Lake Nature Reserve and approximately 340m to the northwest of Bush Forever site 263.

A fauna study conducted by Western Wildlife (2006) found that the applied area may act as a linkage for birds moving between the nearby Banjup Bushland and Thomsons Lake Nature Reserve and that the removal of the applied vegetation may result in the further isolation of these remnants. It is considered that the role of the applied area as an ecological linkage is not likely to be significant due to its relatively small size and the presence of other potential linkages nearby. The proposal is therefore not considered likely to impact the environmental values of the nearby conservation areas.

Methodology Site visit 1/6/06
Western Wildlife (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**
The nearest waterbody to the applied area is Thompsons Lake, which is located approximately 2.6km to west. Given this distance and the low relief in the applied area the proposal is not considered likely to affect surface water quality.

The applied area is located within a Priority 3 Public Drinking Water Source Area (PDWSA), however the proposed clearing area is relatively small and is not considered likely to cause a change in water table levels or significantly alter salinity or pH. The proposed clearing is therefore considered not likely to be at variance to this Principle.

Methodology GIS Databases:
Hydrography, linear (hierarchy) - DOE 13/4/05
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**
The applied area is relatively small in size and is located in an urban area on transmissive soils. Vegetation primarily comprises Kunzea glabrescens, the removal of which is not considered likely to cause or exacerbate the incidence of flooding.

Methodology Site visit 1/6/06
State of Western Australia (2005). AgMaps Land Manager.
GIS Database: Swan Coastal Plain North 40cm Orthomosaic - DLI 05

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

Comments
In a submission, the City of Cockburn recommended that the clearing of native vegetation be minimised within Lot 126 Beenyup Road, and the proposed development be focused in the north and east section of the site. The City suggests that the remaining bushland would be an important educational tool for students and the community.

Concerns raised by the City of Cockburn can be adequately addressed by the City through conditions placed within the Development Approval.

Methodology The applied area is not part of a native title claim.
City of Cockburn submission (2006)
GIS Database: Native Title Claims - DLI 7/11/05

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Building or Structure	Mechanical Removal	2.5	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.

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.

Matiske Consulting Pty Ltd (2006). Flora and Vegetation Survey of the Proposed School Site in Bartram Road.

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.

Water and Rivers Commission (2001). Position Statement: Wetlands.

Western Wildlife (2006). Relocation of Southern Brown Bandicoots *Isodon obesulus* from proposed middle school site, Atwell.

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
WRC

Threatened Ecological Community
Water and Rivers Commission (now DoE)