



1. Application details

1.1. Permit application details

Permit application No.: 703/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Anthony Scolaro

1.3. Property details

Property: LOT 503 ON DIAGRAM 100145 (Lot No. 503 KEMP YANGEBUP 6164)

Local Government Area: City Of Cockburn

Colloquial name: Beeliar Drive - Lot 503 on Diagram 100145, Vol 2184 Fol 875

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.9		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; <i>Banksia</i> & <i>Casuarina</i> (Shepherd et al, 2001)	Proposal includes the clearing of 1.9 hectares of vegetation for the purpose of site preparation for an approved showroom development.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation clearing description based on information obtained from Flora and Fauna Survey (Western Botanical, 2005), and a site inspection conducted on 5 September 2005.
Hedde vegetation complex Bassendean Complex - Central & South: Vegetation ranges from woodland of <i>E. marginata</i> - <i>C. fraseriana</i> - <i>Banksia</i> spp. to low woodland of <i>Melaleuca</i> species, and sedgelands on moister sites. This area includes the transition of <i>E. marginata</i> to <i>E. totiana</i> in the vicinity of Perth. (Hedde et al, 1980)	Vegetation under application is described by Western Botanical (2005) as being within good condition with a heavy weed invasion limited to its edges. Vegetation primarily consists of a dense <i>Banksia</i> woodland (<i>Banksia attenuata</i> , <i>Banksia menziesii</i> and <i>Banksia ilicifolia</i>), and occasional Jarrah (<i>Eucalyptus marginata</i>) and a low dense understorey dominated by <i>Hibbertia hypericoides</i> , <i>Dasypogon bromelifolius</i> and <i>Conostylis aculeata</i> spp. <i>preissii</i> .		

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 may be at variance to this Principle**

Vegetation within Lot 503 Kemp Road is described as a dense *Banksia* woodland (*Banksia attenuata*, *Banksia menziesii* and *Banksia ilicifolia*), with occasional Jarrah (*Eucalyptus marginata*), and a low dense understorey dominated by *Hibbertia hypericoides*, *Dasypogon bromelifolius* and *Conostylis aculeata* spp. *preissii*.

While it is noted that weed infestation has occurred on site, it is primarily limited to the edges of the property and areas of disturbance. Intact vegetation is considered to be within good to very good condition, and as such, taking into account the surrounding areas of remnant vegetation, it is considered that Lot 503 Kemp Road may be representative of an area of higher biological diversity.

Methodology Site inspection (7/10/2005)

(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 at variance to this Principle

CALM (2005) advised that specially protected and priority listed fauna may utilise the habitat that is likely to occur on the site, however, given the surrounding land use and infrastructure, a fauna habitat survey would be necessary to determine whether this vegetation could be considered to provide 'significant' habitat.

A secondary assessment was subsequently undertaken by Western Botanical in October 2005, on which CALM (2005) has provided the following advice.

"Western Botanical report states that Carnaby's Black Cockatoo (Endangered EPBC Act) and Quenda (Priority 4) were both observed within the notified area. The Banksia woodland with occasional Jarrah was determined to provide suitable feeding habitat for Carnaby's Cockatoo and shelter, nesting and feeding habitat for Quenda.

In regard to *Calyptorhynchus latirostris* (Carnaby's Cockatoo), the report states on Page 9 that "it is likely that Lot 503 would be part of an ecological linkage, in providing a food source, for the population(s) of Carnaby's Black-Cockatoo that use the area of Beeliar Regional Park and Beyond". Garnett and Corwley (2000) identify that while small areas of feeding habitat can only support a small number of birds for short periods of time, the progressive loss of such small areas is an on-going concern for this species.

In regard to *Isoodon obesulus fusciventer* (Quenda), it was "concluded that the vegetation at Lot 503 is significant in a local sense for Quenda, particularly for relative undisturbed shelter, as most adjacent vegetation has been grazed and now has limited understorey cover".

Given that the native vegetation comprises part of a significant habitat for fauna indigenous to Western Australia, CALM advise that this proposal is at variance to this Principle.

If a permit to clear is granted, the assessing officer recommends that a permit condition be added that directs the proponent, in consultation with CALM, to trap and remove all quenda from the site and translocate the trapped animals to a more appropriate site.

Methodology CALM (2005)
Garnett and Corwley (2000)

(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

CALM (2005) advise that no Declared Rare or Priority Flora were identified during the Western Botanical flora survey of the 22nd and 27th of October 2005. Other orchid species were seen flowering within the notified area on the 22nd of October but the consultant is of the opinion that '*Caladenia huegellii* (DRF) does not appear to be at Lot 503'. On the basis of the information provided, it is considered that the proposed clearing is not likely to be at variance to this Principle.

Methodology CALM (2005)

(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

CALM (2005) advise that the closest State listed Threatened Ecological Community (TEC) is 7km west of the site at Woodman Point Regional Park. The TEC present is Swan Coastal Plain SCP30a described as *Callitris preissii* (or *Melaleuca lanceolata*) forests and woodlands. Based on the limited amount of information provided, there is no evidence to suggest that any EPBC Act listed or State listed TEC's are present on the site of the proposed clearing, and thus is not considered likely to be at variance to this Principle.

Methodology CALM (2005)

(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 may be at variance to this Principle

Heddlie et al (1980) defines the vegetation under application as Bassendean Complex - Central and South. This has a representation of 27% and is classified as ranging from woodland of *E. marginata* - *C. fraseriana* - *Banksia* spp. to low woodland of *Melaleuca* species, and sedgelands on the moister sites.

Vegetation under application is also classified as vegetation association 1001 (Hopkins et al. 2001). This association has a representation of 27.6% of the pre-European extent and is described as medium very sparse woodland; jarrah, with low woodland; *Banksia* & *Casuarina*.

Department of Natural Resource and Environment (2002) considers vegetation complexes, with a representation of 27% pre european vegetation extent, as vulnerable.

Methodology Heddlie et al. (1980)
Shepherd et al. (2001)
Department of Natural Resource and Environment (2002)

(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

Vegetation within the applied area is representative of upland vegetation of the Bassendean Dune system, with no obvious signs of wetland species within the area under application.

While there are no known wetlands or watercourses within Lot 503 Beelie Drive, there are numerous wetlands within the local area surrounding this application. These wetlands include the Kogolup Lake Conservation Category Wetland which is located approximately 50 metres to the south-west of the applied area, EPP Lake, and the Branch Circle Resource Enhancement Wetland located approximately 250 metres to the south.

Water and River Commission (2001) provides distances for which development should occur from wetland areas. In this regard, the proposed clearing is located within the recommended minimum distance of 50 metres, and as such may impact on the buffering capacity of the vegetation to the wetland.

Dr. Robin Smith (personal communication, 11 January 2006), Supervising Hydrogeologist with the Department of Environment, has indicated that the proposed clearing of 1.9 hectares of vegetation is unlikely to impact on the hydrological functions of the nearby wetland, which is an expression of the local groundwater table.

Methodology Site inspection (7/10/2005)
Water and Rivers Commission (2001)
GIS Databases:
- Geomorphic Wetlands (Mgt Categories), SCP - 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

Lot 503 Kemp Road is defined primarily as subdued dune-swale terrain, with the chief soils comprised of leached sands on the low dunes. Associated with the western portion of the site, and wetland areas within close proximity, are neutral to alkaline marly peats, although no indication of peaty soil was observed during the site inspection.

Sandy soils on site are considered likely to be susceptible to both wind and water erosion. Conditions placed on the proposed showrooms development by the City of Cockburn should adequately manage these issues.

The vegetation under application is located directly adjacent to Kogolup Lake Conservation Category Wetland, in an area associated with a relatively shallow groundwater table. As such the majority of Lot 503 Kemp Road is classified as having a Class 2 'Moderate to low risk of ASS or PASS occurring; generally at >3 metres depth'. A relatively small area within the south-west portion of the property is classified as having Class 1 'High risk of ASS or PASS; <3 metres from soil surface'. Vegetation clearing proposed by the applicant is not expected to impact on these potential acid sulphate soils.

Methodology Site inspection (7/10/2005)
GIS Database:
- Acid Sulphate Soil Risk Map, SCP - DoE 04/11/04
- 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 may be at variance to this Principle

CALM (2005) advises that Thomsons Lake Nature Reserve is located 250m away from the site of the proposed clearing. Located at a 65m distance is the boundary of Bush Forever Site 391, one of many sites that make up a chain of lakes and wetland habitats that occur on the western edge of the Bassendean complex. Beelie Regional Park controls and manages Bush Forever Site 391 Thomsons Lake Nature Reserve and adjacent bushland for conservation purposes. Along the same boundary is Kogolup Lake, a wetland listed under the Draft Environmental Protection (Swan Coastal Plain Wetlands) Policy 2004 (EPP).

The Heddle et al (1980) vegetation complex "Bassendean - Central and South" currently has 0.7% vegetation (EPA, 2003) 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.

CALM (2005) also advises that the native vegetation under application is located within close proximity to a corridor of wetlands that are protected and managed for the purpose of nature conservation. Removal of the vegetation will further reduce the buffering capacity of remnant vegetation surrounding the wetlands and reduce habitat value of the wetlands system. This area may act as a stepping-stone for fauna moving between the aforementioned conservation lands.

Methodology CALM (2005)
EPA (2003)
JANIS (1997)
Heddle et al (1980)

(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

Dr. Robin Smith (personal communication, 11 January 2006), Supervising Hydrogeologist with the Department of Environment, advised that the groundwater resource within the area under application is known to consist of relatively fresh, shallow water. As Lot 503 Kemp Road is not located within an area high salinity risk, it is considered unlikely that the proposed clearing will adversely impact on the quality of the surface or groundwater resource within the area.

Methodology GIS Database:
- Salinity Risk LM 25m - DOLA 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

Lot 503 Kemp Road shows a general relief in topography toward the south-west, and the Kogulup Lake Conservation Category Wetland.

Dr. Robin Smith (personal communication, 11 January 2006), Supervising Hydrogeologist with the Department of Environment, advised that Lot 501 Kemp Road contains well draining transmissive soils, and is located within a relatively small water catchment area. While the clearing of vegetation may increase the amount of groundwater recharge, it is considered unlikely to cause or exacerbate the incidence of flooding.

Methodology Site inspection (5/09/2005)
GIS Databases:
- Topographic Contours, Metropolitan Area - DLI
- Hydrography, linear - DOE 01/02/04

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

Comments

The City of Cockburn advise that a Development approval for the proposed commercial showrooms has been granted for Lot 503 Kemp Road, and that it has no objections to the proposed clearing. This fits with the current commercial zoning.

Com-Net Community Networking (Inc) advises that the proposed clearing is concerning in that the proposed area is located directly next to a school, and will add to noise and pollution, possibly affecting the well being of students.

The Proponent made three commitments that would be implemented following the granting of a clearing permit. The first was a \$20000 contribution to the Department of Conservation and Land Management. This was to assist in the completion of a rehabilitation and weed management project within the Thomsons Lake Nature Reserve. This included \$10 000 for a weed control program and \$10 000 for revegetated with endemic upland and wetland species that are local to the area. This project aimed to significantly enhance CALM's ability to improve biodiversity outcomes at Thomsons Lake Nature Reserve by providing a one-off boost to weed control and rehabilitation works in the reserve. The second commitment was to re-establishment the feeding habitat of the Carnaby within the Beeliar Regional Park. This included a \$5 000 financial contribution to the Cockburn Wetlands Education Centre that would be used to specifically plant a seedling mix that reflected the Carnaby food source on Lot 503 and includes Eucalyptus and Banksia species. The Third commitment included the translocation of slow growing species such as grass trees (*Xanthorrhoea* spp.) and *Zamia* Palms (*Macrozamia riedlei*). This would total approximately 20 - 30 individuals which is the maximum number of individuals that could be effectively relocated and adequately cared for in the Regional Park

No further approvals are required from the Department of Environment for this proposal.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Building or Structure	Mechanical Removal	1.9	Grant	The assessable criteria have been addressed and it has been found that the proposal is at variance to principle (b) and that the proposal may be at variance to principles (a), (e) and (h).

Principle (b)

The proposal was determined to be at variance to with this principle due to its local significance as habitat for a Quenda population that utilises the vegetation under application for shelter, nesting and feeding. The Fauna assessment also identified that Carnaby Black Cockatoo used the area under application as feeding habitat.

The proponent has identified through its consultants reports that trapping via approved methods will be undertaken to re-locate the Quenda population in consultation with CALM. This is consistent with the CALM (2006) recommendations that a Quenda Management Plan is developed and licence to trap and relocate the animals sought. This was recommended because of the lack of suitable remnant vegetation immediately adjacent to the notified area that would allow the Quenda to naturally relocate. A condition relating to the translocation of Quenda before clearing is undertaken has been recommended to ensure all Quenda are removed to an appropriate alternative area.

The proponent's consultants report also provide a commitment to re-establishment feeding habitat of the Carnaby's Black Cockatoo. This includes a \$5000 financial contribution that will be given to the Cockburn Wetland Education Centre to be used to re-instate feeding habitat within the secured tenure of the local Beeliam Regional Park. The revegetation will be with seedlings that comprises local Banksia and Eucalypt species known to be used by Carnaby's for feeding. It is acknowledged that although the proposed clearing will result in the immediate loss of a food source on Lot 503 utilised by Carnaby Black Cockatoo's, there is alternative Carnaby feeding habitat available in the local area. The medium to long term benefits of re-establishing this food source in secure tenure (Beeliam Regional Park) is a positive result for maintenance of this food source into the future.

Principle (a and h)

The vegetation in the area under application was assessed as providing a potential ecological link to the Beeliam Regional Park and having biological diversity than that may be higher than that present in the local area.

The consultants working on behalf of the proponent has prepared a package that includes three main commitments that aim to mitigate the impacts of the proposed clearing. These include 1) The contribution of \$20000 to the Department of Conservation and Land Management for completing weed control within the Thomsons Lake Nature Reserve and Beeliam Regional Park; 2) The re-establishment of habitat for Carnaby within the Beeliam Regional Park and 3) The translocation of slow growing species such as grass trees and Zamia Palms.

The proposed weed management and revegetation is considered to provide long term benefit to the Park and local area by assisting in the first step of a major rehabilitation project that intends to improve biodiversity outcomes at Thomsons Lake Nature Reserve by providing a one-off boost to weed control and rehabilitation works in the reserve.

It is considered that the committed funds for works within the adjacent Beeliam Regional Park and Thomsons Lake Nature Reserve will enhance CALM's ability to improve biodiversity outcomes within these secure reserves. This should therefore result in a positive outcome for the local area.

Principle (e)

While these vegetation complexes have a representation under the recommended 30% and are therefore considered vulnerable, the EPA recognises that vegetation within a constrained area can be varied to a minimum level of 10% representation of pre-European extent (EPA, 2003). As the area is within the Perth Metropolitan area and has a current development approval it is considered a constrained area with the current representation above the minimum 10%.

5. References

CALM Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref 2005I/1694.

CALM Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of

Conservation and Land Management, Western Australia. DoE TRIM ref IN24153.

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.

Garnett, S. and Cowley G. (2000). The Action Plan for Australian Birds. Environment Australia and the Royal Australasian Ornithologists Union.

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, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

McNee, S. (2005) Reconnaissance Survey and Assessment of Flora and Fauna on Lot 503, Beeliar Drive, Success. Report No. WB320. Western Botanical Unpublished Report for Beck Advisory, Midvale Western Australia, November 2005

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

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)