

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 669/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: William Albert & Leon Antonio Canzirri

1.3. Property details

Property: LOT 18 ON PLAN 8913 (CARABOODA)

Local Government Area: City Of Wanneroo

Colloquial name: Carabooda Road

1.4. Application

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

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 1948: Low woodland; banksia on limestone (Hopkins et al. 2001, Shepherd et al. 2001).	5.5 ha of native vegetation was applied to be cleared on Lot 18.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation ranged from good to completely degraded (Site Visit 2005, DAWA 2005). The overall condition of good was therefore used.
Heddie 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 (Heddie et al 1980).	The vegetation within the rural property consists of a dominance of banksias, with few eucalyptus species and a diverse understorey, interspersed with weeds, along the northern, eastern and southern boundaries (Site Visit 2005). A large, degraded section occupies the centre of the property and consists of dumped sand, heavy weed infestation and 2 ha of neglected vineyard (Site Visit 2005). A fire access track has been maintained along the northern, eastern and southern boundaries. The proponent reported that the property had been cleared 15 years ago. Observations during the site visit (2005) suggested that clearing may well have taken place extensively within the property, followed by some regrowth, but only some vegetation on the perimeter had been cleared, which now showed signs of edge effects, namely weed invasion. Following the site visit, the proponents agreed to an amended area of 4.7 ha leaving vegetated buffers on the northern, eastern and southern boundaries which incorporates remnant vegetation in good		

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**

Of the 4.7 ha applied to be cleared, more than half is degraded with dumpings of sands and weed invasion and abuts 2 ha of neglected vineyard. The remaining intact vegetation consists of banksia with diverse understorey in good condition with some weed invasion on edges. A negotiated outcome was reached in that some of the good vegetation on the perimeter would remain.

Yanchep National Park (2662 ha), Neerabup Nature Reserve (129 ha) and Neerabup National Park (410 ha) are location within 5 km of the property.

It is unlikely that this relatively small amount of disturbed native vegetation (4.7 ha) applied to be cleared is of higher biodiversity than that in these National Parks and Reserve.

Methodology Site Visit (07/09/05)

GIS databases:

-Swan Coastal Plain North 1m Orthomosaic - DLI 01/04

-CALM Managed Lands and Waters - CALM 1/06/04

(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**

A search of the Department of Environment and Heritage database for the area listed three species or species habitat likely to occur: two vulnerable species Baudin's Black-Cockatoo, (*Calyptorhynchus baudinii*), Chuditch (*Dasyurus geoffroii*) and one endangered species Carnaby's Black-Cockatoo, (*Calyptorhynchus latirostris*). A major portion of the property has previously been cleared (Leo Canzirri pers. comm. 2006) and does not support large, long-lived trees. As the eastern and northern boundaries of the property abut the Gnangara-Moore River State Forrest, it is likely that any Cockatoos will use the forest as habitat and will, therefore, not be compromised by the clearing.

Areas to the south and west of the property have been substantially cleared and used for horticulture pursuits. It is unlikely that Chuditch have remained in this disturbed environment. There was no evidence of any mammal activity in the area under application (Site Visit 2005).

A vegetated buffer will remain, for avifaunal movement, between the proposed clearing and the surrounding state forest to the north and east with a narrow strip abutting the road to the south.

Methodology Department of Environment and Heritage (EPBC Act 1999) database

Site Visit (07/09/05)

(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**

Five populations of the DRF *Eucalyptus argutifolia* have been recorded within 5km of the area under application (the closest approximately 3.2km). Although these populations occur generally on the same vegetation type, *Eucalyptus argutifolia* typically grows in shallow soils over limestone or slopes or gullies of limestone ridges and outcrops. Most of the property is made up of yellow deep sand, topography is relatively flat and there are no slopes or gullies of limestone ridges and outcrops in the immediate area (DAWA 2005). It is unlikely, therefore, that this species is present within this local area.

Further, clearing, disturbance and extensive weed invasion within the proposed area is not likely to have supported any long-term existence of significant flora.

Methodology Site Visit (07/09/05)

GIS databases:

-Declared Rare and Priority Flora List - CALM 13/08/03

-Pre-European Vegetation - DA 01/01

(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 identified in the area under application, with the nearest being more than 4 km to the west of the property.

Given the predominantly degraded nature of the vegetation under application, it is unlikely to be part of or is

necessary for the maintenance of a Threatened Ecological Community.

Methodology GIS databases:
- 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 Heddle vegetation complex (Cottesloe Complex Central and South) identified in the area under application has 18,474 ha remaining (41.1%) of its pre-European extent (Heddle et al 1980). The Beard vegetation association (1948) is recorded as having 17,315 ha remaining (21.4%) (Hopkins et al. 2001, Shepherd et al 2001). Given that Beard's study (Shepherd et al 2001) is significantly broader than Heddle's study (Heddle et al 1980), which is confined to the Swan Coastal Plain, Heddle's study provides a more accurate representation of the vegetation type and should be used in this instance. Further, Beard Vegetation Association 1948 has 15.6% secured in IUCN Class I-IV reserves and 37.8% in other reserves, thereby meeting the JANIS criteria benchmark of 15% representation in conservation reserves (JANIS Forests Criteria 1997).

Methodology Hopkins et al. (2001)
JANIS Forests Criteria (1997)
Department of Natural Resources and Environment 2002; EPA 2000
GIS databases:
- Pre-European Vegetation - DA 01/01
- Heddle Vegetation Complexes - DEP 21/06/95.

(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 watercourses or wetlands mapped within the area under application, nor ecological communities that are wetland dependent within 2.5km of the area under application.

Methodology GIS databases: - Geomorphic wetlands (Mgmt Categories) - Swan Coastal Plain - DOE 15/09/04.- EPP, Lakes - DEP 28/07/03.- EPP, Wetlands (draft) - DEP 21/07/04.- ANCA wetlands - CALM 08/01.- Clearing Regulations - Environmentally Sensitive Areas - DOE 8/03/05

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments **Proposal may be at variance to this Principle**

DAWA (2005) identified the Karrakatta sand yellow phase unit on Lot 18 which contains yellow deep sands, pale deep sands, yellow/brown shallow sand and bare rock, with a high risk of wind erosion particularly on pale deep sands. The report indicated that most of the property is mapped as yellow deep sands. Nevertheless, DAWA (2005) suggests that a suitable wind erosion management plan should be developed and implemented to reduce the risk of erosion occurring.

The proponent has agreed to retain a vegetation buffer along the northern, eastern and southern perimeter of the area under application, thereby minimising the affects of wind erosion on the property. A condition detailing this buffer is included as a condition on the permit.

Acid sulfate soil risk map shows no known risk of shallow or deeper Acid Sulphate Soils (ASS) or Potential Acid Sulphate Soils (PASS) in the area proposed to be cleared (class 3).

Methodology DAWA (2005) Land Degradation Assessment Report TRIM Ref No. EI2495
GIS databases:
- Acid Sulphate Soil risk map, SCP DOE 01/02/04.
- Soils, Statewide - DA 11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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**

Gnangara-Moore River State Forest borders the eastern and northern sides of the property. The proponent has agreed to retain a 20 metre buffer of existing native vegetation along these boundaries. This buffer will provide ecological linkage to the state forest.

Bush Forever site is located south east off the Carabooda and Cutler Road intersection, some 30 m south-east of the buffer areas.

Yanchep National Park (2662 ha), Neerabup Nature Reserve (129 ha) and Neerabup National Park (410 ha) are location within 5 km of the property. Given the relatively small size of the area applied to be cleared, and the distance to these reserves, it is unlikely that the clearing as applied will impact on the environmental values

of these conservation areas.

Methodology GIS databases:
- CALM Managed Lands and Waters - CALM 1/06/04
- Swan Coastal Plain North 1m Orthomosaic - DLI 01/04
- Bushforever - MFP 07/01
- EPP, Areas - 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 has an average annual rainfall of 800mm, transeaporation of 700 mm per annum and regional groundwater salinity ranging between 0-500mg/L. A Priority 1 Public Drinking Water Source Area, namely the Gnangara Underground Water Pollution Control Area, is located approximately 700+ m to the east of the area under application and is not likely to be affected by the clearing.
Given the medium rainfall (800mm average per year) and transeaporation rate of 700 mm per year, together with the remaining surrounding vegetation, the clearing as proposed is not likely to significantly impact on the quality of the surface or underground water.

Methodology GIS databases:-
- Groundwater Salinity, Statewide - 22/02/00.
- Hydrography, linear - DOE 01/02/04.
- Evapotranspiration, Areal Actual - BOM 30/09/01
- Hydrographic Catchments, Sub-catchments - DOE 01/07/03
- Rainfall, Mean Annual - BOM 30/09/01

(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 area shows a general relief in topography toward the north-west. Given the large amount of remaining vegetation surrounding the area under application (State Forest) and the transmissive nature of the sands at the site, clearing is unlikely to cause or exacerbate the incidence of flooding.

Methodology GIS databases:- Topographic Contours, Statewide - DOLA 12/09/02.- Soils, Statewide - DA 11/99

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

Comments
The proponent has advised that he will be dry cropping this area pro tem and therefore will not require a licence to take water.
The City of Wanneroo have provided a copy of the Development Approval for the intended activity (TRIM Ref. DOC 2005)
No Native Title Claim or Aboriginal Sites of Significance occur with the area under application. 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
Horticulture	Mechanical Removal	5.5	Grant	<p>The permit holder has agreed to reduce the area under application from 5.5ha to 4.7ha, which now includes a vegetated buffer (approximately 20m on northern and eastern property boundaries and 5m on southern boundary) around the perimeter of the clearing.</p> <p>The amended area has been assessed and the clearing as proposed may be at variance to Principle g and is not likely to be at variance to the remaining Clearing Principles.</p> <p>For Principle g, DAWA (2005) identified a high risk of wind erosion, particularly on pale deep sands and that a suitable wind erosion management plan should be developed. However, the report also indicated most of the property is mapped as yellow deep sands. Notwithstanding, the proponent has agreed to retain a vegetation buffer along the northern, eastern and southern perimeter of the area under application, thereby minimising the affects of wind erosion on the property. The remnant vegetation within the buffer areas shall not be cleared (cross-hatched red on attached Plan 669/1) and the access tracks within the buffer areas shall be revegetated (solid filled orange on plan 669/1).</p> <p>The assessing officer therefore recommends that a permit be granted with the following conditions:</p> <ol style="list-style-type: none">1. The Permit Holder shall not clear any native vegetation within the area cross-

hatched red on attached Plan 669/1

2. The permit holder shall revegetate the area solid filled orange on Plan 669/1. The revegetation shall be established and maintained to an average planting density of 1000 plants per hectare. The species shall consist of overstorey, midstorey and understorey species that are native to the area. Seed shall be sourced from within a 10km radius of the property.

The proponent has advised the department that he intends to grow only oats on the subject area that will rely on annual rainfall and, therefore, does not require groundwater. Should the proponent wish to change the land use in the future and require groundwater he will need to apply to the Department of Water for a groundwater licence.

5. References

- DAWA (2005) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref EI2494
- 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.
- Government of Western Australia (1997) Wetlands Conservation Policy for Western Australia, Department of Conservation and Land Management and the Water and Rivers 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.
- 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.
- 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.

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)