



## 1. Application details

### 1.1. Permit application details

Permit application No.: 681/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Metropolitan Cemeteries Board

### 1.3. Property details

Property: LOT 9959 ON PLAN 214546 (Lot No. 9959 LEVIATHAN PADBURY 6025)  
Local Government Area: City Of Joondalup  
Colloquial name: Whitfords Avenue - Vol 1836 Fol 508, Lot 9959 on Plan 214546

### 1.4. Application

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

## 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 6: Medium woodland; tuart & jarrah (Hopkins et al. 2001, Shepherd et al. 2001). Heddle vegetation complex: Karrakatta complex - central and south: Predominantly open forest of Eucalyptus gomphocephala - E. marginata - E. calophylla and woodland of E. marginata - Banksia species. (Heddle et al 1980)	Area under application is a 1.01ha vegetated site, within close proximity (<500metres) to Bushforever sites. The majority of the surrounding area is predominantly vegetated. The proponent advises that significant trees in the area under application will remain (parkland cleared).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Information pertaining to the vegetation descriptions was obtained from DoE GIS databases and an aerial orthomosaic -(Swan Coastal Plain - DOE 15/09/04, Swan Coastal Plain North 1m Orthomosaic - DLI 01/04)

## 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 is located between Bushforever sites, with the nearest Bushforever site being approximately 20 metres away. Given the proposed clearing of 1.01ha is relatively small and significant trees will not be cleared, it is not likely that the area under application comprises of a higher biological diversity than in the surrounding Bushforever sites.

**Methodology** GIS databases:  
- Bushforever - MSP 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 although relatively small forms a part of a large area of intact vegetation, which may support fauna indigenous to Western Australia. This vegetation was seen to be in good to excellent condition and consisted predominantly of tuart forest with the understorey in various stages of condition due to fires and the presence of tracks and trails. Kangaroos were observed in the area, as well as evidence of rabbit activity (site visit 12/05/05). 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) and the Chuditch, Western Quoll (*Dasyurus geoffroii*) and one endangered species (Carnaby's Black-Cockatoo, (*Calyptorhynchus latirostris*)). Given that a parkland environment is to remain and significant trees will not be cleared, it is unlikely that the clearing as proposed will compromise significant habitat for indigenous fauna.

**Methodology** -Department of Environment and Heritage EPBC Act database  
-Site Visit (12/05/05)

**(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**

No Declared Rare Flora (DRF) species have been mapped within the project area. Declared Priority Flora (Priority 4) has been identified within close proximity to the area under application (closest being 3.2km from proposed clearing site), however it is located within a different vegetation type.

**Methodology** 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 records of Threatened Ecological Communities (TEC) in the vicinity of the proposed clearing (the nearest approximately 5.5km away).

**Methodology** GIS databases:  
- Threatened Ecological Communities - CALM 15/7/03  
- Threatened Plant Communities - DEP 06/95. (Swan Coastal Plain)

**(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**

The State Government is committed to the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001) which includes a target that prevent clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment 2002; EPA 2000).

The vegetation within the area under application consists of Beard vegetation association 6 (Shepherd et al 2001, Hopkins et al 2001) and the Heddle vegetation complex Karrakatta Complex Central and South (Heddle et al 1980). The Beard vegetation association has approximately 23.3% of its original extent remaining (Shepherd et al 2001, Hopkins et al 2001) while in comparison, the Heddle vegetation complex has approximately 29.5% remaining (Heddle et al 2001). Vegetation complexes in the area under application are below the recommended minimum of 30% representation. Given that Beard's (Shepherd et al 2001) study is significantly broader and more dated than Heddle's (Government of Western Australia 2000) study, Heddle's study provides a more accurate representation of the vegetation type and should be used in this instance.

Pre-European	Current Area (ha)	Remaining extent (ha)	Conservation %*	% in reserves/CALM-status**	managed
IBRA Bioregion - Swan Coastal Plain	1,529,235	657,450	43.0	Depleted	
Shire - City of Joondalup	No information available				
Beard vegetation association: 6	79,001	18,398	23.3	Vulnerable	14.5
Heddle vegetation complex Karrakatta Complex Central and South	49,912	14,729	29.5	Vulnerable	

\* Shepherd et al. (2001)

\*\* Department of Natural Resources and Environment (2002)

**Methodology** Hopkins et al. (2001)  
Department of Natural Resources and Environment 2002; EPA 2000  
GIS databases:  
- Pre-European Vegetation - DA 01/01  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
- 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 three EPP Lakes in association with seven Conservation Category Wetlands (CCW) all within 5.1km of the area under application, the nearest CCW being 2.3km from proposed area. However given the high residential establishments between the proposed area and the CCWs, it is not likely that the clearing as proposed will impact on nearby wetlands. Furthermore, due to the relatively small size of proposed clearing and the remaining vegetation within the area it is not likely to be at variance to this principle.

**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.
- 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 is not likely to be at variance to this Principle**

Acid sulfate soil risk map shows no known risk of shallow or deeper Acid Sulphate Soils (ASS) or Potential Acid Sulphate Soils (PASS) (class 3) in the area under application. Given the relatively small size of the area under application (1.01ha) and the remaining surrounding vegetation the clearing as proposed is not likely to cause appreciable land degradation.

**Methodology GIS databases:**

- Acid Sulphate Soil risk map, SCP DOE 01/02/04.
- 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 is not likely to be at variance to this Principle**

Woodvale Nature Reserve and Lake Joondalup Nature Reserve are the only CALM managed conservation reserves within the local area (5km radius) of the area under application. Declared Bushforever sites are 300 metres north, 500 metres south, and 20 metres east of the area under application. Given the remaining surrounding vegetation and the relatively small size of the area under application (1.01ha) it is not likely to have an impact on the environmental values of any adjacent or nearby conservation area

**Methodology GIS databases:-**

- CALM Managed Lands and Waters - CALM 1/06/04
- Bushforever - MSP 07/01

**(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 property is in the Coastal catchment area. The area subject to this proposal has an average annual rainfall of 800mm and regional groundwater salinity at this site ranges between 500-1000mg/L. The area under application is situated in a Priority 3 Public Drinking Water Source Area (PDWSA) (Perth Coastal Underground Water Pollution Control Area). However given the small size of proposed clearing and the remaining vegetation in the area, the clearing as proposed is not likely to be at variance to this principle.

**Methodology GIS databases:-**

- Groundwater Salinity, Statewide - 22/02/00.
- Hydrography, linear - DOE 01/02/04.
- 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 under application has an elevation of 25 metres with a general relief in topography toward the south. Given the small size of proposed clearing and the amount of remaining vegetation surrounding the area under application, 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 land has been reserved for cemetery purposes for over 20 years and the area under application is outside bushforever boundaries.

There is no RIWI Act Licence, Works Approval or EP Act Licence that will affect the area that has been applied to clear

**Methodology** Metropolitan Cemeteries Board

## 4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Miscellaneous	Mechanical Removal	1.01	Grant	The assessable criteria have been addressed and the clearing as proposed may be at variance to Principle e. Using the more detailed Heddlé et al. (1980) study the extent of the remaining vegetation is marginally below the 30% threshold suggested by the National Objectives Targets for Biodiversity Conservation (Department of Natural Resources and Environment 2002). Given the relatively small area applied to parkland clear the assessing officer recommends that the permit be granted.

## 5. References

- AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.
- 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.
- Heddlé, 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, BJ (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)