



## 1. Application details

### 1.1. Permit application details

Permit application No.: 578/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Water Corporation

### 1.3. Property details

Property: ROAD RESERVE  
Local Government Area: City Of Armadale  
Colloquial name: Swamp Rd Road Reserve

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.01		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 125 - Bare areas, salt lakes (Shepherd et al 2001, Hopkins et al 2001).	The clearing as proposed consists of two small areas totalling 50 square meters within the Swamp Road road reserve. The clearing is required to upgrade existing Water Corporation infrastructure. From the aerial photographs provided by the proponent, the vegetation within these areas is sparse and seems to consist mainly of shrubs with little to no trees present.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The Beard vegetation association 125 (bare areas, salt lakes; Shepherd et al 2001, Hopkins et al 2001) does not appear to describe the area under application correctly, given that the Heddle vegetation complex, Southern River Complex (Heddle et al 1980), has a description of Eucalyptus marginata, E. rudis and other plant species that do not tolerate salt. As the Heddle vegetation study was concentrated to the Swan Coastal Plain, the Southern River vegetation complex will be used in this assessment.
Heddle vegetation complex: Southern River Complex - open woodland of Corymbia calophylla, Eucalyptus marginata, Banksia species with fringing woodland of E. rudis and Melaleuca raphiophylla along creek beds (Heddle et al 1980).			

## 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 clearing as proposed consists of two small areas totalling 50 square meters within a road reserve. From the aerial photographs provided by the proponent, the road reserve appears to consist mainly of shrubs with a few trees. As the areas surrounding this road reserve are Bush Forever sites, it is unlikely that the areas under application would be of higher biodiversity value than these Bush Forever sites.

**Methodology** Aerial photographs provided by proponent (DoE Trim No IN 21113)  
GIS Databases:  
- Swan Coastal Plain North Orthomosaic - DLI 04  
- Bush Forever - MFP 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 clearing as proposed consists of two small areas totalling 50 square meters with little to no connectivity to larger tracts of vegetation. It is highly unlikely that the areas under application consist of vegetation that supports or maintains habitat for indigenous fauna, or facilitates the movement of fauna. Therefore it is

considered unlikely that the clearing as proposed would have a significant impact on fauna in the local area.

**Methodology** Aerial photographs provided by the proponent (DoE Trim No IN 21113)  
GIS Databases:  
- Swan Coastal Plain North Orthomosaic - DLI 04

**(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 Declared Rare or Priority Flora within the immediate vicinity of the proposed clearing. Given the small area and the degraded nature of the vegetation under application, it is unlikely that the clearing as proposed would contain species of conservation significance or impact upon these species.

**Methodology** Information provided by the proponent (DoE Trim No IN 21113)  
GIS Databases:  
- Declared Rare and Priority Flora List - CALM 15/07/03

**(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 (TECs) within the immediate vicinity of the proposed clearing. Given the small size and degraded nature of the area under application, it is unlikely that a TEC occurs within the areas under application or will be affected by the clearing as proposed.

**Methodology** Information provided by the proponent (DoE Trim No IN 21113)  
GIS Databases:  
- Threatened Ecological Communities - CALM 15/07/03

**(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 consists of Beard vegetation association 125 (Shepherd et al 2001, Hopkins et al 2001) and the Heddle vegetation complex Southern River Complex (Heddle et al 1980). However, the description for Beard vegetation association 125 is bare areas, salt lakes which does not appear to describe the vegetation under application, therefore will not be considered in the assessment of this Principle.

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which outlines a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European (Department of Natural Resources and Environment 2002, EPA 200). The Southern River complex within the areas under application is below this 30% minimum, however given the degraded nature of the area under application, it is considered unlikely that the vegetation under application is an accurate representation of this Heddle complex. Therefore, the clearing as proposed is unlikely to be at variance to this Principle.

**Methodology** Shepherd et al (2001)  
Hopkins et al (2001)  
Heddle et al (2001)  
Department of Natural Resources and Environment (2002)  
EPA (2000)

**(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 clearing as proposed consists of two small sections within the Swamp Road road reserve. The western part of the under application is within the boundary of a Conservation Category Wetland, while the eastern part is not. Both areas, however, are within the boundary of the Gibbs Road Swamp System which has been listed on the National Directory of Wetlands. However given the degraded nature of the vegetation it is unlikely that the areas under application are an accurate example or quality stand of wetland vegetation. Therefore it is considered that the clearing as proposed is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- ANCA wetlands - CALM 08/01  
- Geomorphic wetlands (Mgmt Categories) - Swan Coastal Plain - 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**

The areas under application have a Class 1 (Moderate to high) Acid Sulphate Soil (ASS) Risk. The soils are described as sandy dunes intervening sandy and clayey swamp flats with chief soils being leached sands. Sandy soils are prone to wind erosion, however given the small areas under application (50 square meters) it is unlikely that the clearing as proposed would cause appreciable on site or off site 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**

The proposed clearing is approximately 300m from the Forrestdale Lake Nature Reserve. Given the small area under application, the degraded nature of the vegetation and the lack of connectivity with other vegetation, it is unlikely that the clearing as proposed would have a significant effect on this nature reserve.

**Methodology** GIS Databases:  
- CALM Managed Lands and Waters - CALM 01/08/04  
- Swan Coastal Plain North Orthomosaic - DLI 04

**(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 areas under application are not within a Public Drinking Water Source Area (PDWSA) or a groundwater protection zone (EPP area). Given the small size (50 square meters) of the area under application, it is unlikely that the clearing as proposed would increase the sedimentation or eutrophication of water bodies or increase the salinity of groundwater.

**Methodology** GIS Databases:  
- Public Drinking Water Source Areas (PDWSA) - DOE 29/11/04  
- EPP, Areas - DEP 06/95  
- Groundwater Salinity, Statewide - 22/02/00

**(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**

Given the small size of the area under application and the relatively flat terrain of the surrounding area, it is unlikely that the clearing as proposed would exacerbate peak flood height or duration.

**Methodology** GIS Databases:  
- Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**

As the property in which the clearing is to take place is within a City of Armadale road reserve, permission for the proposed clearing was obtained from the Armadale Council. The Council expressed that they had no objections to the proposed works.

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** Letter from City of Armadale - (DoE Trim No IN22410)

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Miscellaneous	Mechanical Removal	0.01	Grant	The Principles have been addressed and it is considered that the clearing as proposed is not likely to be at variance to any of them.  Given the small size (50 square meters) and the degraded nature of the vegetation under application, the assessing officer 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.
- 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)