



1. Application details

1.1. Permit application details

Permit application No.: 910/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Yarra Yarra Catchment Management Group Inc.

1.3. Property details

Property: LOT 9551 ON PLAN 158486 (MAYA 6614)
LOT 4446 ON PLAN 232377 (BUNTINE 6613)
LOT 4443 ON PLAN 232374 (BUNTINE 6613)
LOT 4442 ON PLAN 232377 (BUNTINE 6613)
Local Government Area: Shire Of Dalwallinu & Shire Of Perenjori
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
12.33		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. Beard vegetation association 352: Medium woodland; York gum. Beard vegetation association 631: Succulent steppe with woodland and thicket; York gum over Melalueca thyoides & samphire. Shepherd et al. 2001 Department of Natural Resources and Environment 2002	The area under application is a linear tract approximately 4.8km long and ranging in width from 20 to 30 metres at the construction phase. The vegetation to be cleared correlated with the Beard vegetation associations 125 and 631. A good remnant of Beard vegetation association 352 was observed during the site visit but it does not form a part of the area under application. Thus the pre-European distribution of the vegetation types indicated by the desktop study, differs from what was seen during the site visit. There is some woodland and thicket, as would be expected by the description of vegetation association 631, however the succulent steppe, bare areas and salt lakes dominate the area under application. In some areas it was noted that tree and shrub deaths are occurring where samphire species are surviving. The observation of succession; the change from one vegetation community type to another, is noted in a report commissioned by the Yarra Yarra Catchment Management Group. The report by Regeneration Technology Pty Ltd (2002); conducted for the entire catchment, found that the progression of samphire is most obvious where the stress of waterlogging replaces woodlands with succulent steppe. The condition rating of the area is difficult to establish as it would appear that the original vegetation structure has been altered considerably. It would be fair to say that some areas are indeed degraded; where samphire has replaced trees and shrubs. However other areas appear to have retained their vegetation structure and could be considered to be in a good to very good condition.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The description of the vegetation was obtained from a site visit of the area on Thursday the 5th of January 2006. Observations of changes to the vegetation are supported by information provided by the proponent. Regeneration Technology Pty Ltd (2002) Ecological Assessment of the Yarra Yarra Catchment, Final Report

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 associated with a salt lake system that provides internal drainage for the surrounding landscape. CALM have advised that based upon their available data, there is conflicting evidence as to the level of biodiversity of the area. However, from the site visit it appears that the proposed clearing would mostly involve samphire species with limited areas of open woodland and thicket to be affected. Thus the biodiversity of the overall area is not considered to be high. In addition, the purpose of the proposal is to install drains that aim to reduce waterlogging and salinity in the local area. As such there is the potential to halt the decline of biodiversity by reducing the stresses that can lead to the replacement of original vegetation with samphire species. Therefore the proposal is not likely to be at variance to this Principle.
Methodology	CALM, 2006. Site visit, DoE Officer 2006. Regeneration Technology Pty Ltd (2002) Ecological Assessment of the Yarra Yarra Catchment, Final Report.

(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 may be at variance to this Principle CALM have identified 6 Threatened fauna taxa and 4 Priority fauna taxa that have been recorded within the local area. The local area being defined as occurring within a 50km radius measured from the outside perimeter of the area under application. Of these, one Threatened species (Malleefowl) and two Priority 4 species (Crested Bellbird and White-browed Babbler) have been recorded within 10km. A recent sighting of the Malleefowl was also reported within the area under application. All of these fauna require woodland or shrubland vegetation to provide them with appropriate habitats. Much of the area under application would be best described as succulent steppe, consisting of samphire species. While some areas of open woodland and thicket will be affected, the nature of the proposal is such that not all of this vegetation will be removed, thus habitat will remain. In addition, the drainage system that would result from the clearing has the potential to prevent future loss of habitat by addressing the waterlogging and salinity problems of the local area. A survey of the area to ensure that malleefowl nests are not affected by the proposal will be set as a condition should the permit be granted.
Methodology	CALM, 2006. Site visit, DoE Officer 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 CALM have identified 18 Declared Rare flora and 63 Priority flora within the local area. The local area being defined as occurring within a 50km radius measured from the outside perimeter of the area under application. Five of these species occur within a 10km radius, however only one of these, is associated with soils similar to those found in the area under application. This plant is listed as a Priority 1 species, and two occurrences have been recorded at a distance of approximately 8.8km. The soil type where it may be found is restricted to the south west end of the proposal; closer to the agricultural area. This area is degraded as it is one of the locations where succulent steppe has replaced trees and shrubs. Due to the condition of the area it is unlikely that the Priority species would occur.
Methodology	CALM, 2006. GIS Databases: - Declared Rare and Priority Flora list - CALM 01/07/05. - Soils Statewide - DA 11/99 Department of Agriculture (2005) Map Unit Database

(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 at variance to this Principle The area under application is not included in the Threatened Ecological Community database and CALM also have no records of Threatened Ecological Communities for the area. Therefore the proposal is not at variance to this Principle.
Methodology	CALM, 2006. GIS Databases: Threatened Ecological Communities - CALM 12/04/05

(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**

There is 10.3% pre-European vegetation remaining in the Avon Wheatbelt Bioregion, 12% in the Shire of Dalwallinu, 8.4% in the Shire of Perenjori, 89.8% in Beard vegetation association 125, 15.2% in Beard vegetation association 352 and 37% in Beard vegetation association 631.

The Shires of Dalwallinu and Perenjori, the Avon Wheatbelt Bioregion and Beard vegetation association 352 all have less than 30% of their pre-European extent remaining. However, from the site visit it appeared that much of the vegetation that would be affected by this proposal is best described as Beard vegetation association 631. A good remnant of Beard vegetation association 352 did occur in the vicinity of this proposal but did not form a part of the area under application. The vegetation association 631 has 37% of its pre-European extent remaining with 10.4% held in reserves.

Although the clearing would still result in a loss to the shires and the Avon Wheatbelt bioregion, the installation of the drainage system has the potential to protect remaining remnants of original vegetation. In addition, the proposal would result in the removal of a linear tract of vegetation within a larger vegetated area. As the clearing would have a high edge to area ratio, this would reduce its significance as a remnant. Taking into account all of these factors, the proposal is not likely to be at variance to this Principle.

Methodology Shepherd et al, 2001.
Department of Natural Resources and Environment, 2002
GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre-European Vegetation - DA 01/01
- Local Government Authorities - DLI 08/07/04.

(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 purpose of the clearing is for the installation of open cut drains designed to work with the natural drainage system of the landscape. As such the area proposed to be cleared passes through a number of non-perennial salt lakes and minor non-perennial watercourses. The drains are in part, designed to act as a substitute for the original creeklines which have been filled by silt, impeding natural drainage (Fordyce et. al. 2005). While the wetlands and watercourses may be altered by this process, the proposal has the potential to return some natural function normally provided by these features, back to the area. It is not expected that the proposal will result in a reduction of the environmental values of these features and therefore is not likely to be at variance to this Principle.

Methodology GIS Databases: Hydrography, linear - DoE 01/02/04
Site visit, DoE Officer 2006.
Fordyce I.; Yarra Yarra Catchment Management Group; Northern Agricultural Catchments Council (2005) Final Report on Feasibility Study 2003-2005

(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 area proposed to be cleared closely follows a series of naturally occurring salt lakes. Common soils of much of the area consist of gypseous and saline loams. DAWA have advised that in terms of soil erosion and salinity, the proposed clearing is not likely to be at variance with this Principle.

Methodology DAWA, 2005 (TRIM ref IN25158)
GIS Database:
- Soils Statewide - DA 11/99
- Hydrography, linear - DoE 01/02/04

(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**

There are a number of conservation areas in proximity to the area under application. These include White Wells Reserve, Buntine Nature Reserve, Jibberding Nature Reserve and East Latham Nature Reserve. They range in distance from 9 to 22km from the area under application, and range in size from 120 to 36000 hectares. The area proposed to be cleared is relatively small compared to these reserves and more importantly will not result in the complete removal of all vegetation on the properties involved. CALM have advised that the proposal is not likely to have any negative impacts on local conservation areas.

Methodology CALM 2006.
 GIS Databases:
 - CALM Regional Parks - CALM 12/04/02
 - CALM Managed Lands & Waters - CALM 01/07/05
 - Proposed National Parks FMP-CALM 19/03/03
 - Register of National Estate - EA 28/01/03.
 Site visit, DoE Officer 2006.

(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 is in the YarraMonger catchment and does not include any Public Drinking Water Source Areas (PDWSA) or PDWSA Protection Zones. The deep groundwater of the area is known to be hypersaline (DoE 2006). DAWA have advised that the proposal is not likely to cause an increase in salinity. Therefore the proposal is not likely to be at variance to this Principle.

Methodology Hydrologist DoE, pers. com. 2006.
 DAWA, 2005 (TRIM reference IN25158)
 GIS Databases:
 - PDWSA Protection Zones - DOE 07/01/04
 - Public Drinking Water Sources (PDWSAs) - DOE 09/08/05
 - Hydrographic Catchments - Catchments - DOE 23/03/05

(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 at variance to this Principle**
 The vegetation to be cleared occurs in an area that receives 400mm of rainfall annually, and is associated with salt lakes and areas subject to inundation. Currently within the area original creeklines have been filled by silt, impeding natural drainage (Fordyce et. al. 2005). The drainage system that would result from the proposal is designed to reduce local waterlogging by assisting the movement of water, preventing it from pooling. Therefore it is not anticipated that the proposal will result in an increase in local flooding.

Methodology GIS Databases:
 - Rainfall, Mean Annual - BOM 30/09/01
 - Hydrography, linear - DoE 01/02/04
 Fordyce I.; Yarra Yarra Catchment Management Group; Northern Agricultural Catchments Council (2005) Final Report on Feasibility Study 2003-2005

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

Comments
 No Environmental Impact Assessments have been completed for the area.
 The Shire of Perenjori stated that the proposed drainage project had been supported by a resolution of council. The Shire of Dalwallinu responded that there were no planning approvals for the land in question and had no objections to the clearing application.
 A regional DoE team consultation was undertaken and there is no other RIWI Act Licence, Works Approval or EP Act Licence that will affect the area under application.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Miscellaneous	Mechanical Removal	12.33	Grant	The assessable criteria have been addressed and the proposed clearing may be at variance to Principle b as the clearing may result in the loss of some habitat for fauna. In addition a recent sighting of the Threatened malleefowl (<i>Leipoa ocellata</i>) has been recorded in the area. A condition has been set requiring that an area 100 metres to either side of the proposal is surveyed to identify if malleefowl mounds occur in the immediate area. If any mounds are found, the permit holder cannot clear within 100m of them.

5. References

CALM advice: CALM (2006) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref CRN218391.

DAWA (2005) DoE TRIM ref IN25158
 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.
 Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
 Proponent provided advice: Fordyce I.; Yarra Yarra Catchment Management Group; Northern Agricultural Catchments Council (2005) Final Report on Feasibility Study 2003-2005. DoE TRIM ref GD1101.
 Proponent provided advice: Regeneration Technology Pty Ltd (2002) Ecological Assessment of the Yarra Yarra Catchment, Final Report. DoE TRIM ref IN24160
 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)