



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1763/1  
 Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Yarra Yarra Catchment Management Group

### 1.3. Property details

Property: LOT 141 ON PLAN 302153 ( BUNTINE 6613)  
 LOT 140 ON PLAN 302153 ( JIBBERDING 6612)  
 LOT 4487 ON PLAN 135983 (House No. 26845 GREAT NORTHERN JIBBERDING 6612)  
 LOT 3867 ON PLAN 135979 ( JIBBERDING 6612)  
 LOT 4448 ON PLAN 232378 ( JIBBERDING 6612)  
 LOT 1 ON DIAGRAM 57504 ( WUBIN 6612)  
 LOT 4447 ON PLAN 232379 ( WUBIN 6612)

Local Government Area: Shire Of Dalwallinu  
 Colloquial name:

### 1.4. Application

|                    |           |                    |                     |
|--------------------|-----------|--------------------|---------------------|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 19                 |           | Mechanical Removal | Drainage            |

## 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 142 - Medium woodland; York Gum & Salmon Gum. Beard vegetation association 352 - Medium woodland York Gum. Beard vegetation association 435 - Shrublands; Acacia neurophylla, A. beauverdiana & A. resinomarginea thicket. Beard vegetation association 631 - Succulent steppe with woodland and thicket; York Gum over Melaleuca thyoides & samphire. (Hopkins et al. 2001, Shepherd et al. 2001). | The area under application consists of 10 land parcels. Approximately 25% of the area under application consists of vegetated areas. Vegetation types known to occur in different areas of the proposed clearing include open mallee woodland, scattered samphire, scattered acacia and understorey, scattered samphire and bluebush, medium bluebush, Eucalyptus revegetation, roadside verge and shrubland revegetation (Application 2007). It is essentially a cleared landscape with patches of remnant vegetation. Overall, the vegetation in the valley floor is in a poor condition with many trees and shrubs dead or dying from the saline conditions. (DAFWA 2007) The vegetation is sparse (DAFWA 2007) and likely to be in a 'degraded' condition (Keighery 1994). | Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) | The vegetation description and condition was obtained from the information attached to the Application and the Report submitted by the Department of Agriculture and Food. |

### 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 vegetation in different parts of the proposal area is known to be open mallee woodland, scattered samphire, scattered Acacia and understorey, scattered samphire and bluebush, medium bluebush, Eucalyptus revegetation, roadside verge and shrubland revegetation (Application 2007). It is essentially a cleared landscape with patches of remnant vegetation. Overall, the vegetation in the valley floor is in a poor condition with many trees and shrubs dead or dying from the saline conditions. (DAFWA 2007) Vegetated areas represent only about 25% of the proposal area (Application 2007). The vegetation in the proposal area is sparse (DAFWA 2007) and appears to be in a 'degraded' condition (Keighery 1994).

Given the degraded condition of the remaining vegetation, edge effects from surrounding agricultural land uses, saline conditions in the valley floor and isolation from areas of outstanding biodiversity, the proposal area is not likely to be representative of high biodiversity.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology**      GIS Databases:  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
Application 2007  
DAFWA 2007  
Keighery 1994

#### (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**

There are nine known records of Threatened Fauna within a radius of approximately 10km. However, there are no known occurrences of Threatened or Priority Fauna species near the proposed work or on the downstream waterway (DEC 2007). The vegetation in different parts of the proposal area consists of open mallee woodland, scattered samphire, scattered acacia and understorey, scattered samphire and bluebush, medium bluebush, Eucalyptus revegetation, roadside verge and shrubland revegetation. Vegetated areas represent only about 25% of the proposal area. (Application 2007) It is essentially a cleared landscape with patches of remnant vegetation in a 'degraded' condition and many trees and shrubs are either dead or dying from salt-affected conditions (DAFWA 2007; Keighery 1994).

Given the degraded condition of the vegetation, edge effects from surrounding agricultural land uses and presence of salinity, the saline flats are not likely to provide quality habitat to Threatened, Priority Listed or otherwise significant fauna.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology**      GIS Databases:  
- Threatened Fauna - CALM 30/09/05  
Application 2007  
DAFWA 2007  
DEC 2007  
Keighery 1994

#### (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 four known records of Declared Rare Flora (DRF) within a radius of approximately 10km. There are no known occurrences of Declared Rare or Priority Flora populations near the proposed work or on the downstream waterway (DEC 2007). The soil type in the area under application and DRF locations is the same. However, the closest of the DRF is situated approximately 5.5km away from the western end of the proposal area. Furthermore, the DRF are situated upslope in the Buntine Nature Reserve. The vegetation in different parts of the proposal area consists of open mallee woodland, scattered samphire, scattered acacia and understorey, scattered samphire and bluebush, medium bluebush, Eucalyptus revegetation, roadside verge and shrubland revegetation. Vegetated areas represent only about 25% of the proposal area. (Application 2007) It is essentially a cleared landscape with patches of remnant vegetation. The vegetation is in a 'degraded' condition and many trees and shrubs are either dead or dying from salt-affected conditions (DAFWA 2007; Keighery 1994). It is unlikely that the saline valley floor conditions provide suitable habitat for the DRF.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology**      GIS Databases:

- Declared Rare and Priority Flora list - CALM 01/07/05  
 Application 2007  
 DAFWA 2007  
 DEC 2007  
 Keighery 1994

**(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 known occurrences of Threatened Ecological Communities (TEC's) located within 10km of the area under application.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology** 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 at variance to this Principle**

| Pre-European<br>%                  | Current<br>area (ha) | Remaining<br>extent (ha) | Conservation<br>%* | Reserves/CALM-<br>status** | managed land, |
|------------------------------------|----------------------|--------------------------|--------------------|----------------------------|---------------|
|                                    |                      | 9,517,117                | 1,468,711          | 15.4                       | Vulnerable    |
| IBRA Bioregion - Avon Wheatbelt*** | 10.8                 |                          |                    |                            |               |
| Shire - Dalwallinu***              | 723,681              | 71,228                   | 12.0               | Vulnerable                 | Not available |
| Beard veg type - 142               | 711,281              | 188,532                  | 26.5               | Vulnerable                 | 4.0           |
| Beard veg type - 352               | 724,296              | 119,957                  | 16.6               | Vulnerable                 | 5.9           |
| Beard veg type - 435               | 994,586              | 757,195                  | 76.1               | Least concern              | 19.3          |
| Beard veg type - 631               | 106,856              | 53,894                   | 50.4               | Least concern              | 19.9          |

\* (Shepherd et al. 2001; Shepherd 2006)

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

\*\*\* Area within Intensive Landuse Zone

The vegetation under application is a component of Beard Vegetation Associations 142, 352, 435 and 631 (Hopkins et al. 2001) of which there is 26.5%, 16.6%, 76.1% and 50.4% of the pre-European extent remaining respectively (Shepherd et al. 2001, Shepherd 2006). Beard Vegetation Types 142 and 352 are therefore 'vulnerable' for biodiversity conservation (Department of Natural Resources and Environment 2002). In addition the Avon Wheatbelt Bioregion and Shire of Dalwallinu have 15.4% and 12% of the pre-European extent remaining respectively (Shepherd et al. 2001, Shepherd 2006) making them 'vulnerable' for biodiversity conservation (Department of Natural Resources and Environment 2002).

The area under application falls within EPA Position Statement No. 2 and the proposed drainage associated with the clearing is intended to improve the land capability for agricultural purposes.

The area under application has already been impacted by salinity encroachment (DAFWA 2007). The Avon Wheatbelt Bioregion, Shire of Dalwallinu and Beard vegetation associations 142 and 352 all have less than 30% of Pre-European vegetation remaining. The State Government is committed to the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001) which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment 2002; EPA 2000).

Therefore, this proposal is at variance to this Principle.

To reduce the impacts of this proposal an offset condition will be placed on the Permit.

**Methodology** GIS Databases:  
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
 - Pre-European Vegetation - DA 01/01  
 - Local Government Authorities - DLI 08/07/04  
 - EPA Position Paper No 2 Agriculture Region - DEP 12/00  
 DAFWA 2007  
 Department of Natural Resources and Environment, 2002  
 EPA 2000  
 Hopkins et al, 2001  
 Shepherd 2006  
 Shepherd et al, 2001

**(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 at variance to this Principle**

The area under application falls within areas that are subject to inundation and contain non-perennial lakes and watercourses. Different parts of the proposal area are known to contain open mallee woodland, scattered samphire, scattered Acacia and understorey, scattered samphire and bluebush, medium bluebush, Eucalyptus revegetation, roadside verge and shrubland revegetation (Application 2007). The associated vegetation may provide important ecosystem functions, trap sediment and nutrients, protect the water bodies from pollution, stabilise the channel, control the floods and act as a barrier to weed invasion (State of the Environment Report WA 2007).

Therefore the proposed clearing of native vegetation growing in association with these watercourses is at variance to this Principle.

To reduce the impacts of the proposed clearing an offset condition will be placed on the Permit.

**Methodology** GIS Databases:  
- Hydrography, linear - DoE 01/02/04  
- Hydrographic Catchments - Catchments - DoE 23/03/05  
Application 2007  
State of the Environment Report WA 2007

**(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**

Different parts of the proposal area are known to contain open mallee woodland, scattered samphire, scattered Acacia and understorey, scattered samphire and bluebush, medium bluebush, Eucalyptus revegetation, roadside verge and shrubland revegetation (Application 2007). The vegetation to be cleared occurs mostly in saline valley floors where the main type of vegetation is samphire. There are no heavily vegetated areas on the proposed drain line. Established vegetation will be cleared only where it can not be avoided. The width of the proposed clearing is 25-30m. (DAFWA 2007) Soils appear to be neutral/alkaline red earths, sandy yellow earths and yellow earthy sands. The mean annual rainfall for the region is 290-330mm. A dataset of Acid Sulphate Soil mapping is not available for this area. DAFWA (2007a) advised that 'there shall be a continuous levee on either sides of the proposed drain that will stop the surface runoff from entering the drain'. DAFWA (2007) advised that the proposed clearing is unlikely to cause appreciable land degradation.

The proposed clearing may not cause significant wind erosion of soils as the clearing appears to be confined to a narrow strip (25-30m wide) of thinly grown vegetation in the valley floor of this vast agricultural landscape. Considering the low annual regional rainfall (290-330mm), the proposed clearing is unlikely to cause water erosion. In reference to the DAFWA (2007; 2007a) assessments, it is plausible to assume that the proposed clearing may not cause more water-logged and saline conditions than those already prevail within the proposal area, nor it would result in eutrophication of the water bodies, provided that the works are being implemented in accordance with DAFWA (2007a) recommendations.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- Salinity Risk LM 25m - DOLA 00  
- Acid Sulphate Soil risk map, SCP DOE 04/11/04  
- Rainfall, Mean Annual - BOM 30/09/01  
- Soils, Statewide - DA 11/99  
Application 2007  
DAFWA 2007  
DAFWA 2007a

**(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 Buntine Nature Reserve is situated approximately 5km west of the western end of the area under application. The Buntine Nature Reserve is an Environmentally Sensitive Area (ESA) that contains two known species of DRF. The Jibberding Nature Reserve is situated approximately 2km east of the eastern end of the area under application. An un-named Nature Reserve is situated approximately 5km south of the area under application. However, these are not connected to the area under application through corridors of native vegetation. In addition, these Conservation Areas are situated at higher elevations than the valley floors of the area under application, and therefore their hydrology is unlikely to be significantly altered by this proposal.

Other than these Conservation Areas, there are no other Nature Reserves, National Parks, Conservation Parks, Proposed National Parks or other DEC managed areas within a radius of approximately 10km from either ends of the area under application. There are no large areas of remnant vegetation that are linked to the area under application.

Therefore, this proposal is not likely to be at variance to this Principle.

- Methodology** GIS Databases:
- CALM Regional Parks - CALM 12/04/02
  - CALM Managed Lands & Waters - CALM 01/07/05
  - Clearing Regulations - Environmentally Sensitive Areas - DOE 30/05/05
  - Proposed National Parks FMP-CALM 19/03/03
  - Register of National Estate - EA 28/01/03

**(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 situated within the Yarra-Monger hydrographic catchment. The area under application falls within areas that are subject to inundation and contain non-perennial lakes and watercourses. The area under application is not situated within a Public Drinking Water Source Area (Department of Water 2007). Soils appear to be neutral/alkaline red earths, sandy yellow earths and yellow earthy sands. The vegetation to be cleared is mostly in saline valley floors where shallow groundwater and salinity has limited the productivity of the land. The saline conditions of the valley floor appear to be at risk of spreading. (DAFWA 2007) The proposed drainage in the area under application is aiming to lower groundwater and regain productivity.

DoW (2007) has recommended actions to the applicant that will enable an accurate assessment of the impact of the drain's construction and its discharge on the water quality of the subject area and the downstream receiving environment, including Mongers Lake and associated groundwater systems, vegetation complexes and dependent fauna. Furthermore, DAFWA (2007a) has recommended that the spoil from the drain be placed either side of the drain as a continuous levee to stop surface runoff from entering the drain, which will help control eutrophication of on and off-site water bodies.

Given that the proposed clearing is planned to take place in the low-lying valley floor, where the salinity situation has already caused significant deterioration of the quality of surface and groundwater, the proposed clearing is unlikely to cause exacerbate the situation or result in a substantial rise in water table.

Therefore, this proposal is not likely to be at variance to this Principle.

- Methodology** GIS Databases:
- Hydrographic Catchments - Catchments - DOE 23/03/05
  - Hydrography, linear - DoE 01/02/04
  - DAFWA 2007
  - DAFWA 2007a
  - Department of Water 2007
  - DoW 2007

**(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 landform of the area under application is of low gradient in the valley floor. The area under application falls within areas that are subject to inundation and contain non-perennial lakes and watercourses. Soils appear to be neutral/alkaline red earths, sandy yellow earths and yellow earthy sands. The mean annual rainfall for the region is 290-330mm. The evaporation rate for the local area is approximately 2600mm/annum. DAFWA (2007a) advised that 'there shall be a continuous levee on either sides of the proposed drain that will stop the surface runoff from entering the drain'.

Given the construction of a continuous levee on both sides of the drain as per DAFWA (2007a) recommendations, the low regional rainfall (290-330mm per annum), and high evaporation rate (approximately 2600mm/annum) it is unlikely that the clearing in the valley floor will result in increased run-off and flooding.

Therefore, this proposal is not likely to be at variance to this Principle.

- Methodology** GIS Databases:
- Evapotranspiration Isopleths - BOM 09/98
  - Rainfall, Mean Annual - BOM 30/09/01

- Soils, Statewide - DA 11/99  
 - Topographic Contours, Statewide - DOLA 12/09/02  
 DAFWA 2007a

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

**Comments**

Shire of Dalwallinu (2007a) advised that 'the Shire has no objection to the clearing of vegetation within its adjacent road reserves as required to facilitate the proposed drainage works to the land detailed in your letter; namely Lots (Buntine) 141; (Jibberding) 2; 140; 4487; 3679; 3867; 4448; (Wubin) 1; 4447; & 5772'.

Shire of Dalwallinu (2007) advised 'that the proposed drainage works comply with the objectives for the Rural Zone applicable to the land detailed in your letter; namely Lots (Buntine) 141; (Jibberding) 2; 140; 4487; 3679; 3867; 4448; (Wubin) 1; 4447; & 5772. The Shire has no further requirements in regard to the clearing of vegetation on the Lots. The construction of the drain will be subject to further approvals from the Shire where it intersects with Shire Road Reserves'.

Main Roads WA (2007) advised 'that MRWA has no objection to the proposal. As the proposed deep ground water drain crosses Great Northern Highway at two locations at 265.68SLK and 270.26SLK, these proposed works need to be designed and constructed as per the Main Roads Standards and Specifications and at applicant's cost'.

The Commissioner of Soil and Land Conservation has issued NOIDs, with consideration to Referral Responses from DEC, DoW and MRWA, for each land parcel (DAFWA 2007a) (DEC TRIM Ref DOC28237; DEC TRIM Ref DOC28566; DEC TRIM Ref DOC29629). An NOID is not required for Lot 3679 on Plan 142432 as the drain line has been moved away from this property in accordance with a request from the Applicant (DEC TRIM Ref DOC).

The area under application falls within the Intensive Landuse Zone as described in EPA Position Statement No. 2. The proposed clearing is intended to improve the land capability for agricultural purposes. Therefore, an offset condition will be placed on the Clearing Permit to reduce the impact of further loss of vegetation for agricultural purposes.

There is no further requirement for a RIWI Act Licence, Works Approval or EP Act Licence for the area under application.

There are no Aboriginal Sites of Significance, Native Title claims or Environmental Impact Assessments over the area under the application.

**Methodology**

GIS Databases:  
 - Aboriginal Sites of Significance - DIA 28/02/03  
 - Environmental Impact Assessments - DOE 24/10/05  
 - Native Title Claims - DLI 07/11/05  
 DAFWA 2007a  
 Main Roads WA Advice 2007  
 Shire of Dalwallinu 2007  
 Shire of Dalwallinu 2007a

**4. Assessor's comments**

| Purpose  | Method             | Applied area (ha)/ trees | Comment  |
|----------|--------------------|--------------------------|--|
| Drainage | Mechanical Removal | 19                       | <p>The assessable criteria have been addressed and the proposal is at variance to Principle (e) and Principle (f), and not likely to be at variance to the remaining principles.</p> <p>Principle (e): The Avon Wheatbelt Bioregion, Shire of Dalwallinu and Beard vegetation associations 142 and 352 all have less than 30% of Pre-European vegetation remaining, and is therefore at variance to this Principle.</p> <p>Principle (f): The associated vegetation may provide important ecosystem functions, trap sediment and nutrients, protect the water bodies from pollution, stabilise the channel, control the floods and act as a barrier to weed invasion; therefore, clearing vegetation growing in association with watercourses is at variance to this Principle.</p> <p>An offset condition will be placed on the Permit to reduce the impact of this proposal.</p> |

**5. References**

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.  
 DAFWA (2007) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department

of Agriculture and Food Western Australia. DEC TRIM Ref DOC23065.

DAFWA (2007a) Notices of Intent to Drain. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM Ref DOC28566.

DEC (2007) Notice of Intent to Drain. Department of Environment and Conservation. DEC TRIM Ref DOC28564.

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.

Department of Water (2007) Public Drinking Water Source Areas in Western Australia - A register of drinking water catchments within each local government municipality, Department of Water, Government of Western Australia, Perth.

DoW (2007) Referral Response - Notice of Intent to Drain - Jibberding Subcatchment 19. Department of Water. DEC TRIM Ref DOC28563.

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.

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.

Main Roads WA (2007) Submission. DEC TRIM Ref DOC28560.

Shepherd, D.P. (2006) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

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.

Shire of Dalwallinu (2007) Submission. DEC TRIM Ref DOC20645.

Shire of Dalwallinu (2007a) Submission. DEC TRIM Ref DOC34375.

State of the Environment Report Western Australia (2007). Environmental Protection Authority, Government of Western Australia.

## 6. Glossary

| Term  | Meaning  |
|-------|--|
| BCS   | Biodiversity Coordination Section of DEC                 |
| CALM  | Department of Conservation and Land Management (now BCS) |
| DAFWA | Department of Agriculture and Food                       |
| DEC   | Department of Environment and Conservation               |
| DEP   | Department of Environmental Protection (now DEC)         |
| 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 DEC)                    |

