



1. Application details

1.1. Permit application details

Permit application No.: 1651/1
Permit type: Purpose Permit

1.2. Proponent details

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

1.3. Property details

Property: LOT 5522 ON PLAN 226724 (GUTHA 6623)
LOT 5521 ON PLAN 226724 (GUTHA 6623)
LOT 5520 ON PLAN 226724 (GUTHA 6623)
LOT 5512 ON PLAN 226724 (GUTHA 6623)
LOT 5508 ON PLAN 226665 (GUTHA 6623)
LOT 11 ON PLAN 14557 (House No. 2099 MORAWA-THREE SPRINGS MERKANOOKA 6625)
LOT 3922 ON PLAN 232416 (MORAWA 6623)
LOT 3884 ON PLAN 232416 (MERKANOOKA 6625)
LOT 9389 ON PLAN 232416 (MERKANOOKA 6625)
LOT 6537 ON PLAN 232559 (MERKANOOKA 6625)
LOT 6536 ON PLAN 232559 (MERKANOOKA 6625)
LOT 7575 ON PLAN 232559 (MERKANOOKA 6625)
LOT M1594 ON DIAGRAM 7073 (KOOLANOOKA 6623)
LOT 3928 ON PLAN 232415 (KOOLANOOKA 6623)
LOT 6314 ON PLAN 226642 (KOOLANOOKA 6623)

Local Government Area: Shire Of Morawa
Colloquial name: Bowagada

1.4. Application

| | | | |
|--------------------|-----------|--------------------|---------------------|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 52.11 | | 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 associations: - 142: Medium woodland; York Gum & Salmon Gum. Current extent of vegetation is approximately 26.5% of pre-European extent, with 4% of this in DEC estate (DAWA 2001) - 352: Medium woodland York Gum. Current extent of vegetation is approximately 100% of pre-European extent, with 20.3% of this in DEC estate (DAWA 2001) - 551: Shrublands; Allocasuarina campestris thicket. Current extent of vegetation is approximately 23% of pre-European extent, with 27.8% of this in DEC | 15 land parcels: Samphire and saltland vegetation within the valley floor. Samphire (Halosarcia spp.) herbland occupying the lowest part of the drainage line, flanked by a mixed samphire / herbaceous saltbush community, Grey Bindii (Sclerolaena diacantha) herbland, Bluebush (Maireana brevifolia) shrubland and tall saltbush (Atriplex spp.) shrubland over grass (Fordyce 2006). Photographs indicate vegetation sparsely distributed and of mixed health. | Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) | The description and photographs of vegetation under application was obtained from a report provided as supporting information by the proponent, prepared by Dr Ian Fordyce on 17 November 2006. |

estate (DAWA 2001)
- 631: Succulent steppe
with woodland and thicket;
York Gum over Melaleuca.
Current extent of
vegetation is
approximately 50.4% of
pre-European extent, with
21.9% of this in DEC
estate (DAWA 2001)

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 present within the area under application comprises samphire herbland occupying the lowest part of the drainage line, flanked by a mixed samphire / herbaceous saltbush community, Grey Bindii herbland, Bluebush shrubland and tall saltbush shrubland over grass (Fordyce 2006). Photographs indicate vegetation is sparsely distributed.

The areas to be cleared are all within agricultural lands that have been highly modified by farming activities.

The vegetation under application does not appear to fit perfectly within any of the four broad Beard vegetation associations occurring within the area under application, although it does have components of each.

Given the modified nature of the area under application it does not appear to be representative of an area of outstanding biodiversity.

Methodology Fordyce 2006
DAWA 2001
Beard 1980

(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 vegetation under application consists of one main habitat type, being mixed samphire and herbaceous saltbush community, Grey Bindii herbland, Bluebush shrubland and saltbush shrubland (Fordyce 2006).

Of the 5 Threatened fauna (no Priority fauna) recorded within a 10 kilometre radius of the area under application, the salt affected flats are unlikely to provide significant habitat to these or other fauna species (BSC 2006).

Methodology Fordyce 2006
Biodiversity Coordination Section (DEC) November 2006

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments

The soil and geomorphology of the area under application is generally unsuitable as habitat for the 4 Declared Rare and 7 Priority flora that have been recorded within a 10 kilometre radius (BCS 2006). However, it is possible that the species *Gnephosis setifera* (P1) and *Fitzwillia axilliflora* (P2) may occur on saline flats, and *Eremophila nivea* (DRF) may occur on sandy loams (FloraBase website). Given that the saline flats have been modified through agricultural practices over a long period of time, and given the sparsity of the vegetation within the area under application, it is considered unlikely that these species are present within the area under application.

Methodology FloraBase website
Biodiversity Coordination Section (DEC) November 2006

(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 approximately 22 known occurrences of Threatened Ecological Communities (TECs) within 10 kilometres of the area under application. All occurrences are situated higher in the landscape and comprise different vegetation compositions to the area under application. It is unlikely that this proposed clearing would impact on these TECs.

Methodology GIS Database
- TEC (DEC January 2007)

(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 vegetation present within the area under application comprises samphire herbland occupying the lowest part of the drainage line, flanked by a mixed samphire / herbaceous saltbush community, Grey Bindii herbland, Bluebush shrubland and tall saltbush shrubland over grass (Fordyce 2006). Photographs indicate vegetation sparsely distributed and of mixed health.

The vegetation composition within the area under application does not appear to be consistent with any of the four broad Beard vegetation associations (GIS Dataset) occurring within the area under application, although it appears to share common components with at least one type. Three of the four Beard vegetation associations have between 20-30% of their pre-European extent remaining, the fourth has over 50%.

It is unlikely that this proposal will significantly impact on the extent of the four Beard vegetation associations occurring within it, however given that three of the four Beard vegetation associations that occur within the area under application are under-represented, this proposal may be at variance with this principle.

Methodology Fordyce 2006
DAWA 2001
Beard 1980

(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 occurs within a broad natural watercourse in a valley floor. The proposed clearing of saltbush and other salt-tolerant vegetation associated with watercourses is at variance with this principle (f4). To reduce the impacts of this proposed clearing an offset condition has been set.

Methodology GIS Database
- Topographic Contours Statewide (DOLA September 2002)

(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 vegetation to be cleared is mostly in saline valley floors where shallow groundwater and salinity has limited the productivity of the land. Catchment scale drainage has been proposed in the areas aiming to lower groundwater and regain productivity. It is unlikely that the clearing of vegetation will contribute to eutrophication of waterways, wind erosion, groundwater rise or salinity, nor increase the risk of waterlogging (DAFWA 2007).

Salinity mapping and salinity risk datasets indicate that the valley floor is saline and at risk of spreading (GIS Dataset). A dataset of Acid Sulfate Soil mapping is not available for this area. This proposal is unlikely to cause further land degradation.

Methodology DAFWA 2007
GIS Dataset
- Salinity Mapping LM (25m) (DOLA 00)
- Salinity Risk LM (25m) (DOLA 00)

(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 Covenants and Land for Wildlife sites within a 10 kilometre radius of the area under application (BCS 2007). One of the 15 land parcels that contribute to the area under application contains a Conservation Covenant under the Soil and Land Conservation Act within 1 kilometre of the proposed clearing, however this is located upslope of the area under application and the proposed clearing is not likely to impact on the site.

There are several DEC-managed Nature Reserves within a 10 kilometre radius of the area under application. The closest DEC-managed reserve is located approximately 3.5 kilometres from the area under application. All reserves are located higher in the landscape than the area under application, and are unlikely to be significantly impacted upon by the proposed clearing.

Methodology Biodiversity Coordination Section (DEC) March 2007
 GIS Dataset
 - Ramsar wetlands (CALM February 2003)
 - System 1-5 and 7-12 Areas (DOE June 1995)
 - CALM Managed Lands and Waters (CALM July 2005)

(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 vegetation to be cleared is mostly in saline valley floors where shallow groundwater and salinity has limited the productivity of the land. Salinity mapping and salinity risk datasets indicate that the valley floor is saline and at risk of spreading (GIS Dataset). It is unlikely that the clearing of vegetation will contribute to groundwater rise or salinity (DAFWA 2007).

Methodology DAFWA 2007
 GIS Dataset
 - Salinity Mapping LM (25m) (DOLA 00)
 - Salinity Risk LM (25m) (DOLA 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**
 The low rainfall (approximately 300-350mm/annum) and evaporation rate (approximately 400mm/annum) is unlikely to result in increased run-off and flooding as a result of this proposal (GIS Dataset). The landform of the area under application is of low gradient in the valley floor (GIS Dataset).

Methodology GIS Dataset
 - Evapotranspiration Area Actual (BOM September 2001)
 - Mean Annual Rainfall Isohyets (BOM September 2001)
 - Topographic Contours Statewide (DOLA September 2002)

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

Comments
 It has been noted that this permit covers an area in which there exists one registered Indigenous Heritage Site. It is the responsibility of the proponent to ensure that no Aboriginal Sites of Significance are damaged through the clearing process. The permit holder will be advised of this information within the cover letter to this permit.

Advice from the CSLC (Buddy Wheaton) received on 27 March 2007, in relation to a Notice of Intent to Drain for this application: Canna Gutha - Pending, Bowgada - Granted 2005, Merkanooka - approx 1/3 of the catchments properties have received no objections, and the remainder is still pending. It is the responsibility of the proponent to ensure all approvals have been received before undertaking clearing.

Methodology GIS Dataset
 - Aboriginal Sites of Significance (DIA)

4. Assessor's comments

| Purpose | Method | Applied area (ha)/ trees | Comment |
|----------|--------------------|--------------------------|---|
| Drainage | Mechanical Removal | 52.11 | This application to clear native vegetation within a broad valley floor has been assessed against the ten clearing principles, and is at variance with principle f(4) "Native vegetation should not be cleared if it is growing in other watercourses or wetlands". Conditions of an offset have been imposed. |

5. References

Beard, J.S. (1980). Vegetation Survey of Western Australia (1:250,000 series). Vegemap Publications, Perth.
 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.
 Fordyce, I (17 November 2006) Valley-floor Regeneration on a Drainage Line near Gutha. Purpose permit supporting information.
 Mildenhall, L. (20 February 2007) Land Degradation Assessment Report, Clearing Permit Application CPS No. 1651-1, Properties within the Merkanooka, Canna/Gutha and Bowgada Catchments, Yarra Yarra Catchment Management Group Inc. Department of Agriculture and Food, Western Australia.
 Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status.

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) |

