



1. Application details

1.1. Permit application details

Permit application No.: 2703/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Eyre Highway Operators Association

1.3. Property details

Property: LOT 1 ON PLAN 257207 (FRASER RANGE 6443)
 LOT 1 ON PLAN 257207 (FRASER RANGE 6443)
 LOT 12 ON PLAN 175169 (MUNDRABILLA 6443)
 LOT 3 ON PLAN 168565 (CAIGUNA 6443)
 LOT 3 ON PLAN 29177 (COCKLEBIDDY 6443)
 LOT 16 ON PLAN 209053 (Lot No. 16 EYRE FRASER RANGE 6443)
 LOT 11 ON PLAN 181110 (Lot No. 11 EYRE MADURA 6443)

Local Government Area: Shire Of Dundas
 Colloquial name:

1.4. Application

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

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
The vegetation under application is comprised of 4 Beard vegetation associations which include:	The proposed clearing is to occur at 6 separate locations, hence the condition of the vegetation does vary depending on the site of the clearing.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The description and condition of the vegetation under application was determined via the use of aerial and satellite mapping systems
Beard 122: Succulent steppe with open low woodland; Acaia papyrocarpa over saltbush & bluebush	The vegetation present at Fraser Range and Madura appears to be in better condition to that of the remaining areas. The Fraser Range and Madura locations have vegetation which is denser in its coverage and can be described as in an excellent (Keighery 1994) condition. The remaining locations consist of scattered vegetation, with large sections of bare ground, exposed by tracks and access roads, this vegetation can be described as being in a degraded to good (Keighery 1994) condition.		
Beard 482: Medium woodland; merrit & red mallee			
Beard 489: Mosaic: Medium woodland; goldfields blackbutt & Dundas blackbutt / Shrublands; dodonaea scrub			
Beard 1148: Shrublands; scrub-heath in the Coolgardie Region			

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 proposed clearing is for 4.5 ha for a golf course over six sites, spread over 783km along the Eyre Highway.

The biggest site is for 1.5ha and smallest is 0.29ha. The application area is within the Coolgardie and Hampton Bioregions which have 98.42% and 99.73% of native vegetation remaining respectively.

As the areas under application are small and close to disturbed areas (being Eyre Highway) and since the bioregion is well vegetated, the proposed clearing is not considered to be significant area of biodiversity and is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Western Australia Landsat Mosaic 25m - AGO 2006

(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 a number of fauna species located within the local area of some the sites under application. The Australian Bustard (*Ardeotis australis*) (P4) has been recorded 1.2km west of the Cocklebiddy site. The Major mitchell's Cockatoo (*Cacatua leadbeateri*) was recorded 1.5km from the Mundrabilla proposed clearing location. While at the Madura location, Crescent (*Onychogulea lunata*), Banded Hare-Wallaby (*Lagostophus fasciatus fasciatus*) and Major Mitchell's Cockatoo were recorded within the local area.

The application area is within the Coolgardie and Hampton Bioregions which have 98.42% and 99.73% of native vegetation remaining respectively.

However, given that the area has vast amounts of undisturbed vegetation and the size of the six areas under application are small (ranging from 1.5 to 0.29ha), it is considered unlikely that vegetation present at any one of the six locations under application constitute a significant habitat for local fauna.

Methodology GIS database:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- SAC Biodatasets - accessed 19 Nov 08
- Western Australia Landsat Mosaic 25m - AGO 2006

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

Comments **Proposal may be at variance to this Principle**
The proposed clearing is for 4.5 ha for a golf course over six sites, spread over 783km along the Eyre Highway. The biggest site is for 1.5ha and smallest is 0.29ha. The vegetation types vary and are comprised of 4 Beard vegetation associations.

According to GIS data, there are no rare flora within the local area (10km radius) of the six locations which make up the application area. Priority flora have been recorded as close to and in one case within the Balladonia, Caiguna & Madura sites. The proposed clearing at these sites totals 2.04 hectares. These species include *Eucalyptus fraseri* subsp. *melanobasis* (P2), *Myriophyllum ballandoniense* (P4), *Eremophila parvifolia* subsp. *parvifolia* (P4) and *Goodenia varia* (P2).

Flora management conditions will be placed on the permit to ensure these species are surveyed and managed before clearing commences.

Methodology GIS database:
- SAC Biodatasets - accessed 19 Nov 08
- Western Australia Landsat Mosaic 25m - AGO 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 no known Threatened Ecological Communities (TECs) within the local area (10km radius) of any of the seven sites under application. It is therefore considered unlikely that the proposed clearing is at variance to this principle.

Methodology GIS database:
- SAC Biodatasets - accessed 19 Nov 08
- Western Australia Landsat Mosaic 25m - AGO 2006

(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 at variance to this Principle

The proposed clearing is for 4.5 ha for a golf course over six sites, spread over 783km along the Eyre Highway. The biggest site is for 1.5ha and smallest is 0.29ha. The vegetation present at the various locations is comprised of 4 beard vegetation associations which have high percentages of vegetation remaining. The vegetation associations that will be impacted by the proposed clearing (see table below) are well over the 30% recommended threshold for retained vegetation (Commonwealth 2001).

Therefore, the proposed clearing is not at variance to this principle.

	Pre-European	Current Extent	% Remaining
Bioregion			
Coolgardie	12 707 204	12 707 619	98.42
Hampton	1 042 051	1 039 273	99.73
Shire			
Dundas	9 303 336	9 296 483	99.93
Beard Veg			
1148	260 383	257 534	98.91
Beard Veg			
122	662 055	661 758	99.96
Beard Veg			
482	1 628 465	1 612 292	99.01
Beard Veg			
489	78 604	78 604	100.00

Methodology Shepherd (2007)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 19 Nov 08

(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 no major watercourses or wetlands that are within close proximity of any of the six sites under application. There are a number of minor non-perennial watercourses located near the applied areas, with the closest occurring 200m south west of the Fraser Range site. There are also several dams located within close proximity of some of the applied sites. The closest is located 100m north of the Cocklebiddy site.

Due to the distance from these water bodies, it is considered unlikely that any watercourse will be adversely affected by the proposed clearing.

Methodology GIS Databases:

- Hydrography linear - DOW 13/7/06

(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 bioregion is characterised by its low rainfall, with most annual falls recorded between 250 - 300 mm (DEC 2002). Due to the large distance between the six locations under application, the soil types differ and are comprised of five soil profiles. Land degradation is unlikely to be an issue, given the small size of the seven areas and lack of rainfall in the areas under application.

Methodology DEC (2002)
Northcote et al. (1968)
GIS database:

(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 may be at variance to this Principle

There are two conservation areas that are within the local area (10km radius) of sites under application. The first, the Nuytsland Nature Reserve, is located less than 3 metres from the Cocklebiddy location. The second, Jidabji Nature Reserve, is located 4.4km west of the Caiguna location.

Due to the size of the proposed clearing and given that the vegetation is well represented throughout the bioregion and Shire, it is considered unlikely that clearing within any of the sites under application will impact on the environmental values of nearby conservation areas.

Weed management conditions will be placed on the permit to ensure nearby reserves are not impacted by the clearing.

Methodology GIS Databases:
- CALM Managed Lands and Waters - CALM 01/06/05

(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

There are no major watercourses or wetlands within close proximity of the sites proposed to be cleared.

The proposed clearing is for 4.5 ha for a golf course over six sites, spread over 783km along the Eyre Highway and is within highly vegetated bioregions, being the Coolgardie and Hampton Bioregions which have 98.42% and 99.73% of native vegetation remaining respectively.

Therefore the proposed clearing is unlikely that to impact on surface or groundwater quality.

Methodology GIS Databases:
- Hydrography linear - DOW 13/7/06
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Western Australia Landsat Mosaic 25m - AGO 2006

(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 proposed clearing is for 4.5 ha for a golf course over six sites, spread over 783km along the Eyre Highway and is within highly vegetated bioregions, being the Coolgardie and Hampton Bioregions which have 98.42% and 99.73% of native vegetation remaining respectively.

Due to the low annual rainfall and small size of the proposed clearing it is considered unlikely that the incidence or intensity of flooding will increase as a result of the proposed clearing.

Methodology GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Western Australia Landsat Mosaic 25m - AGO 2006

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

Comments

All of the properties under application are freehold land with the full consent of landholders. The Shire of Dundas supports the project (DOC61764).

Methodology

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s510 of the Environmental Protection Act 1986, and the proposed clearing may be at variance to Principles (c) and (h), is not at variance to Principle (e) and is not likely to be at variance to the remaining Principles.

5. References

Department of Environment and Conservation (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical

Subregions. Esperance 2 (ESP2 - Recherche subregion).

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shepherd (2007). 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 2007 from Vegetation Extent dataset ANZWA1050000124.

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)

