



1. Application details

1.1. Permit application details

Permit application No.: 1204/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Wooramel Pastoral Company (Wooramel Pastoral Co.)

1.3. Property details

Property: LOT 405 ON PLAN 220214 (WOORAMEL 6701)

Local Government Area: Shire Of Carnarvon

Colloquial name: Bandys & North Mineretchie

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
50		Mechanical Removal	Building or Structure
50		Mechanical Removal	Grazing & Pasture

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 346: Mosaic: Shrublands; Acacia sclerosperma, A. victoriae and snakewood scrub / Shrublands; patches of low mixed scrub. (Hopkins et al. 2001, Shepherd et al. 2001).	The proposal includes clearing of 100ha of pastoral land. The vegetation under application consists mainly of tall Shrublands, Acacia and Current Bush, Needle bush and intermittent grasses. The vegetation was in good condition with stock and grazing impacts noted throughout the area. (Site visit 20 June 2006)	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The majority of the area (100ha) under application is altered except for the effects of grazing. This has resulted in the removal of understorey species and grasses and damage to the lower sections of the larger shrubs. (Site visit 20 June 2006)

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 proposal includes clearing of 61ha of pastoral land. The vegetation under application consists mainly of tall Shrublands, Acacia and Currant Bush, Needle bush and occasional grasses (Site visit 20 June 2006). The vegetation condition varies from degraded to good with stock and grazing impacts noted throughout the area (Site visit 20 June 2006). This has resulted in the removal of understorey species and grasses and damage to the lower sections of the larger shrubs (Site visit 20 June 2006). The level of disturbance at this site and limited diversity of native species suggests that the original biodiversity value has been compromised. It is therefore unlikely that the vegetation under application is representative of an area of high biodiversity in the Bioregion or the local area.

Methodology Site visit (20 June 2006)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.

(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 proposal includes clearing of 61ha of pastoral land. The vegetation condition varies from degraded to good with stock and grazing impacts noted throughout the area (Site visit 20 June 2006). This has resulted in the removal of understorey species and grasses and damage to the lower sections of the larger shrubs (Site visit 20 June 2006). The level of disturbance at this site and limited diversity of native species suggests that the original

biodiversity and habitat value has been compromised. The vegetation under application is therefore unlikely to provide a significant habitat for indigenous fauna.

Methodology Site visit (20 June 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

There are no known records of Declared Rare or Priority flora within the local area (50 km of the proposal area). In addition the area under application is a pastoral station and the history of grazing has significantly reduced the understorey and altered the vegetation structure (Site visit 20 June 2006). It is therefore unlikely that the proposed clearing is at variance with this Principle.

Methodology Site visit (20 June 2006)

GIS Databases:

- Declared Rare and Priority Flora list - CALM 01/07/05
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05

(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 records of Threatened Ecological Communities (TECs) within 50 km of the proposed clearing. This proposal is therefore not likely to be at variance with 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 not at variance to this Principle

The vegetation under application is representative of Beard Vegetation Association 346 (Hopkins et al. 2001) of which there is 100% of the pre-European extent remaining (Shepherd et al. 2001). In addition the application falls within the Carnarvon IBRA Bioregion which has 99.8% of the pre-European extent remaining (Shepherd et al. 2001). Beard Vegetation Association 346 and the Carnarvon IBRA Bioregion are therefore both of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002). This proposal is therefore not at variance with this Principle.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	Reserves/CALM-managed land,
%					
IBRA Bioregion - Carnarvon	8,382,974	8,369,554	99.8	Least concern	11.3
Shire - Carnarvon	Not available	Not available	Not available	Not available	Not available
Beard veg type - 346	61,617	61,615	100.0	Least concern	0.9

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

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
- Shepherd et al, 2001.
Department of Natural Resources and Environment, 2002

(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 area under application has low recorded rainfall average of 300mm per annum. In addition no watercourses or wetlands were observed within the proposed area (Site visit 20 June 2006). The closest watercourse or wetland occurs 150 m east of the area under application and consists of a major drain. Given the distance to the major drain and the low rainfall it is unlikely that this proposal is at variance to this Principle.

Methodology Site visit (20 June 2006)

GIS Databases:

- Hydrography, linear - DoE 01/02/04
- Hydrographic Catchments - Catchments - DoE 23/03/05
- Rainfall, Mean Annual - BOM 30/09/01

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal may be at variance to this Principle

DAFWA (2006) advise that areas of aeolian sand are common within the Sandal land system. The red deep sand topsoils that are referred to by the proponent were in pre-historic times subject to wind erosion. Wind erosion is not expected to be a problem once the irrigated perennial grass pasture has been established. However, wind erosion may require management. For this reason the proponent's plan has been amended. Each of the proposed 23 fenced paddock areas will be irrigated in its entirety, and hence the area of each paddock will be approximately 2.17 hectares. Irrigated pasture surfaces are less prone to soil erosion.

The assessment identified the potential for land degradation to occur in the form of wind erosion. However, if the proposal is implemented as planned this risk will be minimised. Therefore the proposed clearing may be at variance with principle (g) for wind erosion.

Methodology DAFWA (2006)

GIS Databases:

- Rainfall, Mean Annual - BOM 30/09/01
- Salinity Risk LM 25m - DOLA 00
- Acid Sulphate Soil risk map, SCP DOE 04/11/04
- 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 Shark Bay Marine Park is located 8 km west of the area under application. In addition the Shark Bay Area and Wooramel Seagrass Bank are registered as National Estate and form part of the Shark Bay World Heritage area. No terrestrial conservation areas were located within 50 km from the area under application. The vegetation under application is degraded to good condition, however is disturbed from grazing with negligible understorey present (Site visit 20 June 2006). The proposed clearing is not likely to impact on the environmental values of the identified conservation reserves due to the distance. Therefore this proposal is unlikely 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
- 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 falls within the Coastal catchment and has a low recorded rainfall average of 300mm per annum. In addition no watercourses or wetlands were observed within the proposed area (Site visit 20 June 2006). The closest watercourse or wetland occurs 150 m east of the area under application and consists of a major drain. Due to the low rainfall rate and the depth to groundwater approximately 350 m below ground level it is unlikely that this proposal will cause deterioration in the quality of surface or underground water.

Methodology GIS Databases:

- Current WIN data sets
- Hydrographic Catchments - Catchments - DOE 23/03/05
- Hydrography, linear - DoE 01/02/04
- Rainfall, Mean Annual - BOM 30/09/01

(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 area under application consists of red sandy duplexes associated with the level terrain, secondary associated soils are red deep siliceous sands and sandy earths occurring on low dunes and relic alluvial benches, and minor soil inclusions of moderately saline, red shallow duplex associated with depressions. (DAFWA, 2006)

DAFWA (2006) advise that the selected area is well chosen to utilise an area of relatively uniform soils. Flooding is not expected to present problems on the project area, at the scale that is proposed.

This proposal is therefore not likely to be at variance with this Principle.

Methodology DAFWA (2006)
GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The Shire of Carnarvon has not indicated that there are any planning requirements or approvals that would affect the clearing.

An Environmental Impact Assessment (EIA) was conducted over the area under application as part of the Shire of Carnarvon Town Planning Scheme which identified proposed areas for infrastructure and areas of conservation within the Shire of Carnarvon. The Scheme was formally assessed for environmental review and managed through scheme maps, provisions and local planning strategy. This EIA does not affect this application as the property is zoned accordingly (EPA reference CRN145179).

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

The Department of Water are currently assessing an amendment to the property's water licence to 1.4GL for irrigation of fodder crops. The Department of Water have further advised that 'based on an irrigation area of 50ha the Department believes that your current groundwater licence of 65,000kl per annum will provide the irrigation requirement for the project for the first 6-12 months.' (DEC Trim Ref No. DOC10933)

The Department of Environment received a submission from the Yamatji Marlpa Barna Baba Maaja Aboriginal Corporation (YMBBMAC) Yamatji Land and Sea Council Pilbara Native Title Service representing the Gnulli native title claimants whose traditional land is affected by this proposal. YMBBMAC advise that the proponent should ensure clearing does not interfere with any Aboriginal sites and is in compliance with the Aboriginal Heritage Act 1972. The proponents will be advised in the covering letter of their obligations under the Aboriginal Heritage Act 1972.

YMBBMAC further advises that the social and cultural use of the land falls within the definition of 'environment' under the Environmental Protection Act 1986 and should be afforded appropriate protective measures. DEC's assessment has found that the area under application has been degraded by historic grazing and does not contain significant environment values, including fauna habitat.

Methodology

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Building or Structure	Mechanical Removal	10	The assessable criteria have been addressed and the proposal may be at variance to Principle g. Principle (g): the assessment identified the potential for land degradation to occur in the form of wind erosion. However, if the proposal is implemented as planned this risk will be minimised. An agreement exists between the proponent and DAFWA. It is a goal of the proposal that Best Management Plan guidelines are to be developed; to support the potential future expansion of artesian bore irrigated crop production. The assessing officer therefore recommends that the permit should be granted.
Grazing & Pasture	Mechanical Removal	51	

5. References

DAFWA (2006) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DEC TRIM Ref DOC9116.
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.
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.
Site Visit Report (2006) Department of Environment and Conservation (DEC), Western Australia. DEC TRIM Ref DOC8970.

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)

