



1. Application details

1.1. Permit application details

Permit application No.: 595/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: MR Frank Crago

1.3. Property details

Property: LOT 6385 ON PLAN 230092 (MARCHAGEE 6515)
Local Government Area: Shire Of Coorow
Colloquial name: Victoria loc 6385, Vanzetti Rd, Coorow

1.4. Application

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

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 1143: Shrublands; Allocasuarina campestris thicket with patches of heath. (Hopkins et al 2001, Shepherd et al 2001).	Vegetation typical to this area includes Eucalyptus loxophleba (York Gum), E. kochii, E. subangusta, E. leptopoda (Tammin Mallee), Melaleuca uncinata (broombush), M. vinnula, Grevillea paniculata and some Allocasurina species (CALM - Geraldton). Chief soils are sandy neutral yellow mottled soils (Australian Atlas Soils Database).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Comments from site visit: The vegetation to be cleared is a thin band of vegetation (~20-30m wide) consisting predominantly of mallee. The little understorey exists and the structure of the vegetation has been altered by grazing and other agricultural practices. Large amounts of vegetation have been retained on the property. The area to be cleared does not appear to provide a corridor between other areas of existing bush.

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 at variance to this Principle**
The area under application falls within the Avon Wheatbelt bioregion, a region that is recognised for its high biodiversity. However the area to be cleared is small and degraded from years of exposure to spray drift, root damage and grazing due to farming practices. CALM advises that the small area to be cleared is unlikely to represent an area of outstanding biodiversity. The clearing is proposed to take place in a matrix of cleared farmland with remnant patches present through-out the property that are likely to contain biological diversity typical of the area. In addition, as a part of the surface water management demonstration project, CALM will be working with the proponent to revegetate areas of the property including the riparian zone of a creek line that runs through the property. Seed will be collected from local remnants and were possible vegetation that has been cleared will be used in regeneration projects. Areas of remnant bush will also be fenced off as a part of this project. Therefore the proposed clearing is not at variance to this Principle.

Methodology GIS Databases: Interim Biogeographic Regionalisation of Australia-EA 18/10/00.
Clearing Permit Application
CALM advice

(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 at variance to this Principle**
The area of proposed clearing is within the known range of Carnaby's Black Cockatoo (Calyptorhynchus

latirostris), that is listed as 'endangered' on the Department of CALM's Threatened and priority fauna database. CALM advice implies sufficient habitat corridors and adjacent remnant patches exist in the area so as to mitigate the potential impact of this clearing on local native fauna populations. Although Carnaby's Black-Cockatoo *Calyptorhynchus latirostris* may use the remnant vegetation for foraging habitat, it would appear that sufficient remnant vegetation is available elsewhere in the area to provide alternative foraging opportunities. Photographs that were supplied by the proponent reveal that the vegetation that is proposed to be cleared does not contain nesting hollows suitable for *Calyptorhynchus latirostris*. In addition there are pockets of vegetation nearby that could provide appropriate habitat. Therefore proposed clearing is not at variance to this Principle..

Methodology CALM's Threatened and Priority Fauna Database [The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing (CALM, 2005)].
CALM advice

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

Comments **Proposal is not likely to be at variance to this Principle**
CALM advice indicated that the following DRF occur within 10km of the area, *Caladenia drakeoides*, *Chorizema humile*, *Eremophila vernicosa* ms, *Ptilotus fasciculatus* (based on CALM's Threatened Flora Data Management System). These species are associated with saline or wetland environments that are not reflective of the area proposed to be cleared. Based on the small area to be cleared, and the degraded condition of the understorey, it is unlikely that the proposed clearing of 0.8ha poses a significant threat to flora of special conservation significance. This proposal is not likely to be at variance to this Principle.

Methodology GIS Databases: Declared Rare and Priority Flora list - CALM 13/08/03
CALM's Threatened and Priority Flora Data Management System [The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing. The determination of the presence of rare or priority flora can only be made through appropriate flora survey (CALM, 2004)].
CALM advice

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant ecological community.

Comments **Proposal is not at variance to this Principle**
The Threatened Ecological Community (TEC) database did not include the area affected by this application.

Methodology GIS Databases: Threatened Ecological Communities - CALM 15/07/03

(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**
The Avon Wheatbelt Bioregion has between 10-30% of its pre-European vegetation remaining. This means it is 'vulnerable' by conservation status. Beard vegetation association 1143 has less than 10% remaining. This makes it 'endangered' by conservation status. Therefore the clearing is at variance to this Principle.

	Pre-European Reserves/CALM- area (ha)	Current extent (ha)	Remaining %*	Conservation status**	managed land,
IBRA Bioregion - Avon Wheatbelt	9,578,995	1,536,296	16	Vulnerable	10.3
Shire - Coorow	424,583	164, 895	38.8	Depleted	Not available
Beard veg type - 1143	76,026	4,812	6.3		2.9

* (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.
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 at variance to this Principle**
No watercourse or wetlands occur within the area under application. There is a minor non-perennial watercourse that flows south-north which is situated 1km east of the area to be cleared. This watercourse

currently has little vegetation occurring along it. CALM will be assisting the proponent to fence off and revegetate the riparian area of this creek-line over the coming year. Therefore the proposed clearing is not at variance to this Principle.

Methodology GIS Databases: Hydrography, linear - DoE 01/02/04
Midwest Gascoyne Hydro Unit

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

Comments Proposal is not at variance to this Principle

The Department of Agriculture feels that the clearing of this area of vegetation would be unlikely to result in appreciable land degradation. Therefore the proposal is not at variance to this Principle

Methodology GIS Databases - Rainfall, Mean Annual - BOM 30/09/01, Salinity Risk LM 25m - DOLA 00, Soils Statewide - DAWA 11/99,
Department of Agriculture

(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

CALM advice indicates that Un-named Nature Reserves (28669 & 21175) occur within a 10m radius of the area. The vegetation that is proposed to be cleared is small in area, and located some distance from the identified nature reserves. On this basis it is unlikely to link the identified conservation areas. Negligible impacts on the local nature reserves are anticipated. This proposal is not likely to be at variance to this Principle.

Methodology GIS Databases - CALM Regional Parks - CALM 12/04/02, WRC Estate - WRC 05/99, CALM Managed Lands & Waters - CALM 01/06/04, Proposed National Parks FMP-CALM 19/03/03, Register of National Estate - EA 28/01/03
CALM Advice

(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

Predictions indicate that 16% of the Moore River Catchment is at risk of developing a shallow water table (Clarke 2002). However it is unlikely that the removal of a small area of vegetation such as this will have an impact on the surrounding water table. In addition the proponent will be working with CALM to revegetate areas on the property. Planting of perennial species is one of the recognised options for managing dryland salinity (Clarke 2002). Therefore the clearing proposal is not likely to be at variance to this Principle.

Methodology Clarke M. and Rogers D., 2002. Rapid Catchment Appraisal 2002 - The Moore River Catchment, Department of Agriculture, Geraldton, Western Australia
Midwest Gascoyne Hydro Unit

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

Comments Proposal is not likely to be at variance to this Principle

The mean annual rainfall of this area is 400mm. The Buntine Marchagee road, which exists to the north of the proposed clearing area, is prone to flooding. It is unlikely that the removal of 0.8 hectare of vegetation will effect peak flood height or duration in the area. Also, the area to be cleared is part of a surface water management demonstration site that aims to alleviate the flooding of this road by controlling the flow of water from the surrounding catchment. This will be done by creating a series of shallow surface water control structures (grade banks and contour banks). In addition some areas of the property will be revegetated with natives perennials. These measures should ease flood levels. Therefore it is not likely that the proposed clearing will be at variance to this Principle.

Methodology GIS Databases - Rainfall, Mean Annual - BOM 30/09/01
AgWA - Bunbury
Mid-West Hydro Unit
CALM - Geraldton

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

Comments

The Shire of Coorow has indicated that there are no planning requirements/approvals that effect the clearing proposal.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Cropping	Mechanical Removal	0.8	Grant	The assessable criteria have been addressed and the clearing is at variance to Principle e). The amount of vegetation in the Avon Wheatbelt Bioregion and vegetation type 1143 is less than 30% of its original extent. Although the clearing is taking place in an area that has been extensively cleared the vegetation to be removed is small (0.8ha) and degraded. It is felt that the proposed clearing will have an insignificant effect on the current vegetation extent for the region. In addition the area is part of a surface water management demonstration site which is jointly managed by CALM and the Coorow LCDC. The anticipated benefits of this project compensate for the removal of this vegetation. The assessing officer therefore recommends that the permit should be granted.

5. References

- CALM (2005) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref IN22149
- Clarke M. and Rogers D., 2002. Rapid Catchment Appraisal 2002 - The Moore River Catchment, Department of Agriculture, Geraldton, Western Australia
- Crago F (2005) Application for a Clearing Permit - CPS 595/1, Frank Milton Crago, Coorow, Western Australian, DoE TRIM ref IN21219
- 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, BJ (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.