



1. Application details

1.1. Permit application details

Permit application No.: 148/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Leslie & Barbara Miller

1.3. Property details

Property: LOT 62 ON DIAGRAM 95302 (Lot No. 62 GREAT NORTHERN CHITTERING 6084)

Local Government Area: Shire Of Chittering

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
30		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 3: Medium forest; jarrah - marri	The vegetation under application is dominated by <i>Corymbia calophylla</i> with <i>Eucalyptus marginata</i> over an understorey of <i>Xanthorrhoea</i> and <i>Grevillea/Hakea</i> (Site visit 18/11/2004).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Observed during site visit (18/11/2004): The majority of the area (30 ha) to be cleared is degraded, with most understorey species absent. Remaining understorey is relatively sparse and consists mainly of <i>Xanthorrhoea</i> .
Beard vegetation association 4: Medium woodland; marri & wandoo (Hopkins et al. 2001, Shepherd et al. 2001).			
Hedde vegetation complex - Yalanbee Complex in Low Rainfall and Murray and Bindoon Complex in Low to Medium Rainfall (Hedde et al, 1980)	Discussions with the applicants indicates that the proposal is for the clearing of approximately 30 hectares of under-storey (parkland clearing).		
Mattiske Vegetation Types - Y6 and Ck. (Mattiske Consulting, 1998)			

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 majority of the area (30 ha) to be cleared is degraded, as a result of historical grazing. Most understorey species are absent, with the remaining understorey vegetation composed of relatively sparse grasstrees and weed species.

Due to the condition of the vegetation, it is considered unlikely that the proposed clearing would impact of biodiversity.

Methodology Site inspection (18/11/2004)

(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**

CALM (2004) reports a low probability of the proposed clearing to be at variance with this Principle.

A search of CALM's Threatened and Priority Fauna Database indicates that there are species of threatened fauna: Chuditch (*Dasyurus geoffroii*), and Carnaby's Black-Cockatoo (*Calyptorhynchus latirostris*) (S1 Rare or is likely to become extinct fauna specifically protected under the Wildlife Conservation Act), that have been recorded in the local area (10 km radius). There is no evidence specific to this application to suggest that the area under application constitutes a significant habitat for these fauna. Furthermore, given the degraded condition of the vegetation and that the mid and upper storey are to remain intact, it is unlikely that significant habitat for fauna will be affected.

Methodology CALM (2004) (DoE Trim No. CEO1547/04)

(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's Rare Flora Database indicates that there are 35 known Declared Rare and Priority Flora populations located in the local area (defined as a 10 km radius). However no populations are known to occur within the same vegetation type as proposed to be cleared under this application (CALM 2004).

CALM (2004) has no records indicating the presence of Declared Rare or priority flora species in the area under application. Furthermore, the understorey of the vegetation under application has been severely depleted, and hence the probability of such flora persisting in the area is low.

Methodology CALM (2004) (DoE Trim No. CEO1547/04)
GIS Databases:
- Declared Rare and Priority Flora List - CALM 13/08/03

(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 likely to be at variance to this Principle

The Threatened Ecological Community database did not highlight any TEC areas within the area under application, and CALM recognises a low probability of the proposed clearing to be at variance with this Principle (CALM 2004).

Methodology CALM (2004) (DoE Trim No. CEO1547/04)
GIS Database - Threatened Ecological Communities - CALM 15/7/03

(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 may be at variance to this Principle

The vegetation within Lot 62 Great Northern Highway is identified as Beard Associations 3 and 4 (Hopkins et al. 2001). The State Government is committed to the National Objectives Targets for Biodiversity Conservation 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). Although vegetation association 4 is below this recommended threshold (23.5%), the areas under application for this clearing permit do not extend into the area of this vegetation association. Mattiske Consulting (1998) classifies the applied area into two complex, Y6 and Ck. Both of these complexes have more than 30% remaining.

The proposed clearing also falls within Heddle vegetation complexes Yalanbee Complex in low rainfall and Murray and Bindoon Complex in Low / to Medium Rainfall. There is currently no information available on the representation of these complexes.

reserves/CALM-	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	% in managed land
IBRA Bioregion - Jarrah Forest	4,544,335	2,665,480	58.7%	Least concern	
Shire of Chittering	123,502	48,828	39.5%	Depleted	
On the property	40	~19.3	~48.25%	Depleted	
Beard vegetation associations:					
3	3,046,385	2,197,837	72.1%	Least concern	10.1%
4	1,247,834	292,993	23.5%	Vulnerable	14.8%
Mattiske Vegetation types:					
Yalanbee (Y6)	1,583,884	814,609	51.4%	Least concern	
Coolakin (Ck)	1,338,992	573,908	42.9%	Depleted	
Heddle vegetation types:					
Yalanbee Complex	Information unavailable				
Murray and Bindoon Complex	Information unavailable				

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

Given the degraded nature of the vegetation under application, the understorey proposed to be cleared is not good representation of the vegetation mapped for the area. It is therefore unlikely that the clearing as proposed is at variance to this Principle.

Methodology Hopkins et al (2001).
Shepherd et al (2001).
EPA (2000).
Mattiske Consulting (1998).
Hedde et al (1980).
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

There are two minor non-perennial watercourses in the area under application. These watercourses flow in a northerly direction from Lot 62 Great Northern Hwy, with the eastern watercourse flowing into Burroloo Well Reserve. There are no indications that the vegetation under notice is growing in association with either of these watercourses.

Methodology Site inspection (18/11/2004)
GIS Database - Hydrographic linear features

(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

DAWA (2004) has provided the following advice:

(Area 1 in) the western end of the property is mainly cleared, with some grass trees. The report identified the potential for eutrophication and water erosion to occur on the soils in the area. However, further clearing is not likely to substantially increase the potential for land degradation to occur with the maintenance of adequate groundcover to address any water erosion risk.

(Area 2 in) the centre of the property has been cleared to a parkland state. The report identified the potential for water erosion and salinity to occur on the soils in this area. The identified risks are not likely to cause a substantial increase in land degradation on site.

Methodology DAWA (2004) (DoE Trim No. CEO1493/04)

(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

CALM (2004) reports:

Burroloo Well Nature Reserve abuts the subject property along a portion of its northern boundary. The area to be cleared is within 250 meters upslope of the Nature Reserve. Chittering Lakes Nature reserve is within 3km of the subject area. In Keighery's report (Keighery, 2003) entitled 'Vegetation and vascular flora of Burroloo Well Nature Reserve' Greg Keighery offers the observation '...along the sedge land...are remains of Marri and Xanthorrhoea stumps and other dead shrubs indicating that considerably more water is entering the reserve from surrounding cleared land...' Further clearing adjacent to Burroloo Nature Reserve has the potential to increase surface water run off and therefore exacerbate flora mortality in the reserve.

CALM (pers comms.) have advised that this impact on Burroloo Wells Reserve could potentially be managed through the installation of contouring to reduce surface water run-off, and through revegetation measures.

Methodology CALM (2004) (DoE Trim No. CEO1493/04)
Keighery (2003)

(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

Groundwater salinity in the region surrounding the area under application ranges up to 8000 mg/L, and is primarily a resource for stock watering. The removal of vegetation will continue the mobilisation of salt in the groundwater, although this is expected to be limited, as the vegetation applied for is largely grasses.

Methodology Hydrogeologist advice; Hydrological Advice (Robin Smith pers comm. 2005).

(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

Clearing of native vegetation under application is not likely to increase the incidence or severity of flooding, as it is in neither a floodway or flood fringe.

This proposal may increase the run-off of surface water slightly, although as the clearing is proposed for understorey and few selected larger trees, it is not likely to be by any appreciable amount.

Methodology Site inspection (18/11/2004)

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

Comments

Submission from the Shire of Chittering: This application was presented at the Shire of Chittering Council meeting on 8 December 2004. At that meeting the Council resolved that the Council recommend to the Department that it should refuse the application to clear 30 ha of native vegetation at Lot 62 Great Northern Highway, Chittering as it is contrary to the intent of the Shire of Chittering Local Planning Strategy, it is contrary to the Shire of Chittering Land Capability Study and it is adjacent to a site of conservation significance (Burroloo Well).

Methodology Submission from Shire of Chittering 22 February 2005 and 14 June 2005 (TRIM Ref No.s EI1646 and EI836)

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Grazing & Pasture	Mechanical Removal	30	Refuse	The Shire of Chittering have recommended that the Department refuse the application as the clearing, as proposed, is contrary to the intent of the Shire of Chittering Local Planning Strategy and contrary to the aims of their Land Capability Assessment. Under s51O of the Environmental Protection Act 1986 the CEO, in considering a clearing matter, 'shall have regard to any planning instrument, or other matter, that the CEO considers relevant'. Further, the proposal may be at variance with Principles (e) and (h). Thus, the assessing officer recommends that the CEO refuse to issue a permit.

5. References

CALM (2004) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref CEO1547/04.

DAWA (2004) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref CEO1493/04.

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.

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.

Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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.

Keighery, G. (2003). Vegetation and vascular flora of Burroloo Well Nature Reserve, Chittering Shire. Department of Conservation and Land Management, Western Australia, 18 p.

Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

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.