

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 750/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Dennis James Stokes

1.3. Property details

Property: LOT 12 ON PLAN 14188 (DUDAWA 6519)

Local Government Area: Shire Of Three Springs

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
59		Mechanical Removal	Cropping
27		Mechanical Removal	Cropping
237		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 142: Medium woodland; York gum and salmon gum (Hopkins et al. 2001, Shepherd et al. 2001).	Native flora species that will be affected by this proposal included predominantly Eucalyptus spp.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Observed during site visit: the first area viewed (areas identified as site 1 and the western part of site 2) was mostly devoid of under and midstorey species and was subject to weed infestation by <i>Avena barbata</i> (Wild Oats), <i>Arctotheca calendula</i> (Cape Weed) and <i>Echium plantagineum</i> (Paterson's Curse). This area was dominated by Eucalyptus species with numerous hollows that may provide significant habitat for local fauna species.
Beard vegetation association 142: Medium woodland; York gum and salmon gum. Beard vegetation association 354: Shrublands; jam and Acacia <i>rostellifera</i> (and Hakea) scrub with scattered York gum. Beard vegetation association 380: Shrublands; scrub-heath on sandplain (Hopkins et al. 2001, Shepherd et al. 2001).	Native flora species that will be affected by this proposal include <i>Acacia acuminata</i> , <i>A. rostellifera</i> , <i>A. blakelyi</i> , <i>Acacia</i> spp., <i>Hakea recurva</i> , <i>Hakea preissii</i> , <i>Hakea</i> spp., <i>Eucalyptus loxophleba</i> , <i>E. eudesmioides</i> , <i>E. wandoo</i> , <i>Eucalyptus</i> spp., <i>Actinostrobos arenarius</i> , <i>Ecdeiocolea monostachya</i> , <i>Banksia attenuata</i> , <i>B. menziesii</i> , <i>B. prionotes</i> , <i>Banksia</i> spp., <i>Santalum acuminatum</i> , <i>Anigozanthos</i> spp., <i>Grevillea eriostachya</i> , <i>G. candelabroides</i> , <i>G. amplexans</i> , <i>Grevillea</i> spp., <i>Allocasuarina campestris</i> , <i>Dampiera</i> sp., <i>Dianella revolute</i> , <i>Callitris glaucophylla</i> , <i>Conostylis</i> spp., <i>Calothamnus</i> sp., <i>Waitzia</i> spp. and <i>Melalueca</i> sp.	Pristine: No obvious signs of disturbance (Keighery 1994)	Observed during site visit: the 323ha covered by clearing permit 750 consisted of a wide variety of habitats and soil types ranging from yellow to red sandy soils to gravel. Most of the areas inspected were highly biodiverse and had only a fringing weed problem. Some native flora species noted in the remaining areas were <i>Acacia acuminata</i> , <i>A. rostellifera</i> , <i>A. blakelyi</i> , <i>Acacia</i> spp., <i>Hakea recurva</i> , <i>Hakea preissii</i> , <i>Hakea</i> spp., <i>Eucalyptus loxophleba</i> , <i>E. eudesmioides</i> , <i>E. wandoo</i> , <i>Eucalyptus</i> spp., <i>Actinostrobos arenarius</i> , <i>Ecdeiocolea monostachya</i> , <i>Banksia attenuata</i> , <i>B. menziesii</i> , <i>B. prionotes</i> , <i>Banksia</i> spp., <i>Santalum acuminatum</i> , <i>Anigozanthos</i> spp., <i>Grevillea eriostachya</i> , <i>G. candelabroides</i> , <i>G. amplexans</i> , <i>Grevillea</i> spp., <i>Allocasuarina campestris</i> , <i>Dampiera</i> sp., <i>Dianella revolute</i> , <i>Callitris glaucophylla</i> , <i>Conostylis</i> spp., <i>Calothamnus</i> sp., <i>Waitzia</i> spp. and <i>Melalueca</i> sp. Photographs were taken of the areas under application. (TRIM Ref: GD578).

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 may be at variance to this Principle**

CALM advised that this application was accompanied by a botanical consultant's report that indicated the occurrence of extensive populations of *Leucopogon marginatus* (DRF) and occurrences of priority taxa *Dryandra fraseri* var. *oxycedra* (P3), *Dryandra borealis* subsp. *Elatior* (P3), and *Banksia elegans* (P4). These occurrences indicate that the vegetation that is proposed to be cleared contains a relatively high proportion of flora species of conservation significance that collectively, is worthy of protection. Aerial photography indicates few parcels of remnant vegetation of equal or greater size in similar or better condition remain in the local area. Based on this counsel, this proposal may be at variance to this Principle.

Methodology CALM, 2005.

GIS Databases: Interim Biogeographic Regionalisation of Australia-EA 18/10/00.
Site visit, DoE Officer, 2005.

(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 at variance to this Principle**

CALM advised that a total of 6 Threatened fauna taxa (including 4 listed under the EPBC Act), 1 Schedule 4 taxon and 5 Priority taxa have been recorded in the local area. These include *Egernia stokesii badia* (Western Spiny-tailed Skink) listed as Endangered under the EPBC Act and *Phascogale tapoatafa tapoatafa* (Southern Brush-tailed Phascogale, P3). The vegetation within the notified area is likely to provide habitat connectivity with other parcels of remnant vegetation in the immediate area, and appears to be sufficiently diverse to offer a range of fauna habitat in an otherwise largely cleared landscape. The advice provided indicates that this proposal is at variance to this Principle.

Methodology CALM, 2006.

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, 2006)].
Site visit, DoE Officer, 2005.

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

Comments **Proposal is seriously at variance to this Principle**

CALM have advised that according to database results, a total of 7 Declared Rare flora taxa (including 5 listed under the EPBC Act) and 22 Priority flora taxa have been recorded with a 10km radius of the proposal. These include *Leucopogon marginatus* (Declared Rare), *Dryandra borealis* subsp. *Elatior* (Priority 3), *Acacia lanceolata* (Priority 2), *Acacia lineolata* subsp. *Multilineata* (Priority 1), *Baeckea* sp. *Bunney Road* (Priority 2) and *Dryandra fraseri* subsp. *oxycedra* (Priority 3). In addition, local CALM records also indicate the presence of *Eremophila nivea* (Silky Eremophila, Declared Rare, listed as Endangered under the EPBC Act) located within 1km of the notified area, *Verticordia albida* (White Featherflower, listed as Endangered under the EPBC Act) and *Eucalyptus pruiniramis* (Midlands Gum, *Jingymia* Gum, listed as Endangered under the EPBC Act) both located within 4km of the notified area. CALM advises that a population of *Leucopogon marginatus* occurs in bushland adjacent to the area under application, in addition to several unconfirmed populations that have been identified within the area under application during a preliminary flora survey conducted in September 2005. CALM indicated that the notified area contains a diversity of soil types which may be suitable for all these species as well as for the locally restricted *Verticordia spicata* subsp. *Squamosa* (Scaley-leaved Featherflower, Declared Rare, listed as Endangered under the EPBC Act - not in the database search results). CALM have also advised in the absence of written consent from the Minister for Environment, it would be in direct contravention of Section 23F(4) of the Wildlife Conservation Act 1950 as amended, for any specimens of *Leucopogon marginatus* to be taken at this site. Therefore, this proposal is at variance to this Principle. Further advice was obtained in respect of the revised proposal submitted by Mr Stokes. The consultant's survey accompanying the revised proposal discussed both *Dryandra fraseri* var. *oxycedra* (P3) and *Dryandra borealis* subsp. *Elatior* (P3) collectively, and therefore the potential impacts are not adequately distinguished. The revised proposal will still involve taking of the DRF *Leucopogon marginatus* in sites 1 and 3. On the basis, it is considered that the clearing is seriously at variance with this principle.

Methodology CALM, 2006.

GIS Databases: Declared Rare and Priority Flora list - CALM 01/07/05.
Site visit, DoE Officer, 2005.
Florabase, 2006.

CALM's Threatened and Priority Flora 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,

(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**

CALM advised that according to database results there are 71 occurrences representing 5 Threatened Ecological Communities within the local area. The nearest occurrence is located approximately 12.9 kilometres from the notified area, being type Mound Springs (Three Springs area) "Assemblages of organic mound springs of the Three Springs area." CALM add that the proposal is not anticipated to have a significant impact on any TEC occurring within the local area due to the distance from the notified area, nor are there any recorded occurrences of TECs within the subject area. Based on the advice provided, this proposal is not likely to be at variance to this Principle.

Methodology CALM, 2006.

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 seriously at variance to this Principle**

There is 10.3% pre-European vegetation remaining in the Avon Wheatbelt Bioregion, 19.7% in the Shire of Three Springs, 24.8% in Beard vegetation association 142, 5.7% in Beard vegetation association 354 and 52.3% in Beard vegetation association 380. CALM advised that vegetation association 380 is not well represented within the IBRA subregion AW1 Avon Wheatbelt P1 and over 11% will be impacted upon by this proposal.

	Pre-European Reserves/CALM- area (ha)	Current extent (ha)	Remaining %*	Conservation status**	managed land,
IBRA Bioregion -					
Avon Wheatbelt	8,967,527	924,828	10.3	Vulnerable	Not available
Shire - Three Springs	258,882	51,008	19.7	Vulnerable	Not available
Beard veg type - 354	105,533	6,029	5.7	Endangered	13.2
Beard veg type - 380	607,325	317,763	52.3	Least concern	31.5
Beard veg type - 142	1,134,385	281,570	24.8	Vulnerable	14.5

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

It is acknowledged that Mr Stokes has committed to revegetation of creeklines. However, such revegetation cannot substitute for the values of intact original native vegetation.

The area falls within the area subject to the EPA's Position Statement No. 2, Environmental Protection of Native Vegetation in Western Australia. This Position Statement recommends that further clearing within this area for agricultural purposes should not be considered, unless the areas are small and alternative measures to protect biodiversity are put into place.

Due to the size of the area, its location and excellent condition, and low degree of representation of vegetation communities, it is considered to represent a significant remnant in an area that has been extensively cleared.

Methodology CALM, 2006.

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**

The area under application falls within the Arrowsmith River, Irwin River and Yarramonger catchments and contains a number of minor non-perennial watercourses. CALM advised that there are 8 occurrences of DoE System 5 areas that overlap the Arrowsmith Lake areas, the Tathra National Park, the Wotto Nature Reserve, and a large wetland adjacent to the Yarra Yarra Nature Reserve. The nearest occurrence overlaps the large wetland, located approximately 26.1 kilometres from the notified area. It is not expected that any wetlands or watercourses of environmental significance will be affected by this proposal due to their distance from the area under application. This proposal is therefore not at variance to this Principle.

Methodology CALM, 2006.
GIS Databases: Hydrography, linear - DoE 01/02/04, Hydrographic Catchments - Catchments - DoE 23/03/05.
Site visit, DoE Officer, 2005.

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

Comments Proposal is seriously at variance to this Principle

DAWA advised that the sites proposed to be cleared are located over a complex geology within the Irwin Sub Basin and the assessment has been divided into six separate components. Clearing of site 1 and the western half of site 2 are unlikely to be at variance to Principle (g) however the proposed clearing of 323 hectares for cropping is at variance with this Principle for salinity in the eastern half of site 2 and sites 3, 4, 5 and 6.

Additional advice was sought from the Commissioner in respect of the revised proposal. While the Commissioner acknowledged that Mr Stokes intends to reduce the area to be cleared and proposes offset plantings and soil conservation earthworks to mitigate the effects of the intended land clearing, the Commissioner considers that the clearing of areas 3, 4 5 and 6 will result in further expansion of those areas already salt-affected, despite the intended revegetation work.

Therefore, the proposed clearing in these area is likely to be seriously at variance with this principle.

Methodology DAWA, 2005.
Department of Agriculture (2005) Map Unit Database.
Site visit, DoE Officer, 2005

(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 advised that a number of conservation areas occur within the local area, with the nearest being the Sweetman Nature Reserve (approximately 9km away). A Land for Wildlife site occurs approximately 8.6 kilometres from the notified area. An ESA (containing *Eremophila nivea* or Silky *Eremophila*, Declared Rare) can be found approximately 1 kilometre from the area under application. The recognised conservation areas fall within sufficient distance so as not to be unduly affected by this proposal, therefore this proposal is not at variance to this Principle.

Methodology CALM, 2006.
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
Site visit, DoE Officer, 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 at variance to this Principle

The area under application falls within the Arrowsmith River, Irwin River and Yarramonger catchments and does not include any Public Drinking Water Source Areas (PDWSA) or PDWSA Protection Zones. DAWA advised that clearing the area, identified as site 1, was unlikely to lead to a reduction in the quality of surface or underground water. Site 2 encompasses a drainage line and has a shallow water table; therefore clearing in the eastern part of this site would impact on water quality. The removal of vegetation from site 3 would result in the degradation of drainage lines and increase turbidity. It was noted that clearing within this site would exacerbate water quality issues on a greater area of the property. The southwest corner of site 4 would be subject to the same water degradation issues as those that apply to site 3. The northern part of site 4 is sandy and the removal of vegetation would be likely to generate seeps and increase sedimentation. Site 5 represents a link in an ecological corridor and the same principles apply as those within site 4. If the eastern part of site 5 is cleared then an increase in turbidity is likely to be the result. If vegetation is removed from the western part of site 5 then an increase in salinity may occur, Site 6 is situated topographically above an un stabilised salt flat. Any removal of vegetation from this area is likely to exacerbate salinity (DAWA, 2005).

Methodology DAWA, 2005.
GIS Databases - Current WIN data sets, PDWSA Protection Zones - DOE 07/01/04, Public Drinking Water Sources (PDWSAs) - DOE 09/08/05, Hydrographic Catchments - Catchments - DOE 23/03/05.

(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 at variance to this Principle

The vegetation under application lies in an extensively cleared Bioregion in an area that experiences 500mm of rainfall annually. The area does not fall within a designated floodway or flood fringe zone (Waters and Rivers Commission, 2000) and is therefore unlikely to lead to an incremental increase in peak flood height or duration. This proposal is therefore not at variance to this Principle.

Methodology GIS Databases - Rainfall, Mean Annual - BOM 30/09/01, Interim Biogeographic Regionalisation of Australia - EA 18/10/00, Pre-European Vegetation - DA 01/01, Local Government Authorities - DLI 08/07/04. Waters and Rivers Commission, 2000.

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

Comments

The Shire of Three Springs has not indicated that there are any planning requirements/approvals that would affect the clearing.

There is no other RIWI Act Licence, Works Approval or EP Act Licence that will affect the area under application.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Cropping	Mechanical Removal	59	Refuse	The assessable criteria have been addressed and a number of objections were raised. BIODIVERSITY - the vegetation that is proposed to be cleared contains a relatively high proportion of flora species of conservation significance that collectively, is worthy of protection. FAUNA - CALM advised that a total of 6 Threatened fauna taxa (including 4 listed under the EPBC Act), 1 Schedule 4 taxon and 5 Priority taxa have been recorded in the local area. FLORA - CALM have advised that according to database results, a total of 7 Declared Rare flora taxa (including 5 listed under the EPBC Act) and 22 Priority flora taxa have been recorded with a 10km radius of the proposal. A population of <i>Leucopogon marginatus</i> (Declared Rare) occurs in bushland adjacent to the area under application, in addition to several unconfirmed populations that have been identified within the area under application during a preliminary flora survey conducted in September 2005, as well as a population of <i>Eremophila nivea</i> (Silky Eremophila, Declared Rare, listed as Endangered under the EPBC Act) located within 1km of the area under application. In addition, in the absence of written consent from the Minister for Environment, it would be in contravention of Section 23F(4) of the Wildlife Conservation Act 1950 as amended, for any specimens of <i>Leucopogon marginatus</i> to be taken from this site. VEGETATION REPRESENTATION - The area contains vegetation types that are underrepresented, and occurs in a bioregion and a local area that have been highly cleared. LAND DEGRADATION - DAWA advised that the proposed clearing of 323 hectares for cropping is likely to be seriously at variance with this Principle for salinity in the eastern half of site 2 and sites 3, 4, 5 and 6. SURFACE OR UNDERGROUND WATER - DAWA have advised that the clearing of native vegetation from the area under application will increase turbidity, sedimentation and salinity. The assessing officer therefore recommends that this application be refused.
Cropping	Mechanical Removal	27	Refuse	
Cropping	Mechanical Removal	237	Refuse	

5. References

- Borger, J. 2005. Rare flora search on M804 remnants 2a, 3, 4 and 5. Property of Dennis and Irene Stokes. Three Springs, Western Australia. DoE TRIM ref: GD653.
- CALM Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref GD664.
- DAWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref CEO1297/05.
- 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.
- 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.

5. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)

