



1. Application details

1.1. Permit application details

Permit application No.: 1436/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Ernest Crawford

1.3. Property details

Property: LOT 4526 ON PLAN 161413 (BOWELLING 6225)

Local Government Area: Shire Of West Arthur

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
	400	Cutting	Hazard reduction or fire control

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
Heddl vegetation	The proposal is for the clearing up to 400 dead trees for fire prevention and hazard reduction. The vegetation is in good condition (Keighery, 1994) with little to no understorey.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation condition was deemed to be good (Keighery, 1994) from aerial photography
Pindalup and Yarragil complex\in low to medium rainfall			
Yalanbee and Dwellingup complex\in low rainfall			

Beard Vegetation
Associations:

3 - Medium forest; jarrah-marri

Mattiske vegetation

Pindalup (Pn) - Open forest of Eucalyptus marginata subsp. thalassica-Corymbia calophylla on slopes and open woodland of Eucalyptus wandoo with some Eucalyptus patens on the lower slopes in semiarid and arid zones.

Yalanbee (Y5) - Mixture of open forest of Eucalyptus marginata subsp. thalassica-Corymbia calophylla and woodland of Eucalyptus wandoo on lateritic uplands in semiarid to perarid zones.

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 is for the clearing of 400 dead trees for the purpose of hazard reduction and fire control.

The area under application is considered to be in good condition (Keighery 1994) with little or no understorey. The area also appears to have been grazed by livestock.

Based on the unlikely significance of the area to contribute to the maintenance of rare flora and TECs and the low significance of the areas habitat values, it is unlikely that the proposed clearing comprises a high level of biological diversity.

Methodology Keighery (1994)
GIS databases:
-Dinniup 50cm orthomosaic - DLI04
-Bridgetown 50cm orthomosaic - DLI04
-Darkan 50cm orthomosaic - DLI03
-Collie 50cm orthomosaic - DLI04
-CALM Managed Lands and Waters - 1/07/05

(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 is for the clearing of approximately 400 dead trees for hazard reduction and fire control. The vegetation has little or no understorey and is considered to be in good to degraded condition (Keighery, 1994). Within the local area (10km radius from the proposed area for clearing) there is one known record of Declared Threatened Fauna, a Bush-tailed Phascogale approximately 10km northeast of the proposed area, and one known record of Priority fauna.

Given the nature of the clearing and the surrounding vegetated area, the area under application is not considered to be significant habitat for fauna indigenous to Western Australia.

Methodology GIS Databases:
-CALM Managed Lands and Waters - CALM 1/07/05
-Dinniup 50cm orthomosaic - DLI04
-Bridgetown 50cm orthomosaic - DLI04
-Darkan 50cm orthomosaic - DLI03
-Collie 50cm orthomosaic - DLI04
-Threatened Fauna SAC Bio Dataset - 05/06/07

(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**
A desktop study found 3 known records of the Declared Rare Flora (DRF) for *Diuris micrantha* and one known record of *Rulingia sp Trigwell Bridge* and two known records of *Tetralthea similis* a Priority 2 species, occurring in the local area (10km radius).

Given the nature of the clearing and that it appears that the area has been grazed it is unlikely that the area includes or is necessary for the continued existence of, rare flora.

Methodology GIS databases:
DEFL SAC Bio Datasets 05/06/07
-Dinniup 50cm orthomosaic - DLI04
-Bridgetown 50cm orthomosaic - DLI04
-Darkan 50cm orthomosaic - DLI03
-Collie 50cm orthomosaic - DLI04

(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 or Priority Ecological Communities within a 20 km radius of the proposed area.

Methodology GIS databases:
-TEC SAC Bio Datasets 05/06/07
-Dinniup 50cm orthomosaic - DLI04
-Bridgetown 50cm orthomosaic - DLI04
-Darkan 50cm orthomosaic - DLI03
-Collie 50cm orthomosaic - DLI04

(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 likely to be at variance to this Principle			Conservation **status	% In reserves/CALM managed land
	Pre-European	Current extent	Remaining		
		(ha)*	(ha)*	(%)*	
IBRA Bioregions -Jarrah Forest		4,506,674.56	2,426,279.798	53.8	Least Concern 14
Shire of West Arthur		282,614	84,226	29.8	Vulnerable
Vegetation type: Beard: Unit 3		2,390,534.711	1,661,219.499	69.5	Least Concern 16.3
Mattiske: Pindalup (Pn)		1,666,912	1,343,956	80.6	Least Concern
Yalanbee (Y5)		1,243,773	852,364	68.5	Least Concern
Hedde: Pdindalup and Yarragil Complex in low to medium rainfall	NA	NA	NA	NA	NA
Yalanbee and Dwellingup Complex in low rainfall	NA	NA	NA	NA	NA

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

*** Within the Intensive Landuse Zone

The area under application is located in the Jarrah Forest Bioregion. The extent of pre-European vegetation within this area is 53.8% (Shepherd et al., 2001).

The proposal site falls within the Shire of West Arthur, which has been extensively cleared with 29.8% remaining of pre-European vegetation (Shepherd et al., 2001).

The Beard Vegetation Association of the area under application is 69.5% of the remaining pre-European vegetation (Hopkins et al., 2001). The Mattiske Complexes are Pindalup and Yalanbee with 80.6% and 68.5% remaining of pre-European vegetation respectively.

The area under application falls within the agricultural zone of EPA Position Paper No. 2. The EPA does not support the further reduction in native vegetation through clearing for agriculture and supports active management by landholders to maintain environmental values of remaining vegetation.

Given the area under application, nature of the clearing and the remaining vegetation in the area, the proposed clearing is not considered significant remanent vegetation in an extensively cleared area.

Methodology GIS datasets:
 -Dinniup 50cm orthomosaic - DLI04
 -Bridgetown 50cm orthomosaic - DLI04
 -Darkan 50cm orthomosaic - DLI03
 -Collie 50cm orthomosaic - DLI04
 -Mattiske Vegetation - CALM 24/3/98
 -Pre-European Vegetation - DA 01/01
 -Hedde Vegetation Complexes - DEP 21/06/95

(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 watercourses or wetlands within the area under application. The closest watercourse is a minor non-perennial watercourse approximately 50m south of the area under application.
 Given the distance to nearest watercourse and the vegetation complex present the area under application is unlikely to contribute to the values of the watercourse and is therefore not likely to be associated with the watercourse.

Methodology GIS Databases:
 -Hydrography, Linear - DOE 1/2/04
 -ANCA Wetlands - CALM 06/95
 -EPP Area - DEP 06/95
 -EPP Lakes - DEP 1/12/92
 -RAMSAR, Wetlands - CALM 14/02/03

(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**
 Due to the nature of the clearing, 400 dead trees, there will likely be no impact on the area leading to land degradation as the area will remain vegetated.

Methodology GIS databases:
 - Acid Sulphate Soil Risk Map, SCP - DoE 01/02/04
 - Salinity Risk LM 25m - DOLA 00
 -Topographic contours, Statewide - DOLA 12/09/02
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(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 areas proposed to be cleared do not lie within or adjacent to areas set aside for conservation. Given the nature of the clearing and the remaining surrounding vegetation in the local area, the proposal sites are highly unlikely to function as ecological linkages to nearby conservation areas.

Methodology Keighery (1994)
 GIS databases:
 - CALM Managed Lands and Waters - CALM 1/07/05
 - 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**
 Due to the nature of the clearing, 400 dead trees, it is unlikely to impact on the quality of surface or underground water as the area will remain vegetated. Though the area is in a Public Drinking Water Source Area, Wellington Dam Catchment Area, the CAWS Act does not cover the removal of dead trees.

Methodology GIS databases:
 -Hydrographic Catchments, Catchments DOW
 -Rainfall, Mean Annual BOM 30/09/01
 -Public Drinking Water Source Areas (PDWSA) DOW

(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**
 Due to the nature of the proposed clearing, it is unlikely to cause or exacerbate flooding within the local area.

Methodology GIS databases:
 -Hydrography, linear -DOE 01/02/04
 -Topographic Contours, Statewide - DOLA 12/09/02
 -Rainfall, Mean annual - BOM 30/09/01

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

Comments
 There is one Native Title claim over the area under application, as the property is privately owned the granting of the clearing permit is a secondary approval and does not constitute a future act under the Native Title Act 1993.

Methodology GIS Database:
 - Native Title Claims - DLI 07/11/05

4. Assessor's comments

Purpose	Method	Applied	Comment
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		area (ha)/ trees	
Hazard reduction or fire control	Cutting	400	The assessable criteria have been addressed, and the proposal is not likely to be at variance to Principles (a), (b), (c), (d), (e), (f), (g), (h), (i) and (j).

5. References

- 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.

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)

