



1. Application details

1.1. Permit application details

Permit application No.: 230/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Manager of Works Shire of Katanning

1.3. Property details

Property: KOJONUP LOCATION 1343 (Lot No. 6222 KATANNING-NYABING KATANNING 6317)

Local Government Area: Shire Of Katanning

Colloquial name: Katanning/Nyabing Road, 8km from Katanning

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing Mechanical Removal	For the purpose of: Recreation
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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 Associations: 1085: Medium woodland; wandoo & blue mallet (Euclayptus gardneri) 1087: Medium woodland; wandoo, morrell & blue mallet	Aerial photos suggest that the area to be cleared is degraded (Keighery, 1994) with obvious signs of disturbance and edge effects. The proposal site is located adjacent to a redundant gravel extraction site which the Shire intends to incorporate into the relocated multi-function shooting range.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition was determined from Orthomosaic photography (Katanning 1.4m Orthomosaic DLI 03).

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 Shire of Katanning is proposing to clear a total of 0.4 hectares of native vegetation to establish a multi-function shooting range. Aerial photos suggest that the area to be cleared is in a degraded condition (Keighery, 1994). The vegetation under application borders a redundant gravel extraction site and has been subject to edge effects.

Although the vegetation under application is poorly represented both regionally and locally, the area under application is small and aerial photos suggest the vegetation is degraded.

Given the above, the vegetation proposed to be cleared is unlikely to comprise a high level of biodiversity.

Methodology Keighery (1994)
GIS Database:
- Katanning 1.4m Orthomosaic - DLI 04

(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**
There are twelve known records of rare fauna within a 10km radius of the proposed clearing. These include Carnaby's Black Cockatoo and Red-tailed Phascogale (both listed as Endangered), Western Rosella (Vulnerable), Barking Owl (P2), Carpet Python (P4), White-browed Babbler (P4) and Hooded Plover (P4). The closest record is Carnaby's Black Cockatoo, recorded approximately 5.9km north-west of the application area.

The Shire of Katanning is proposing to clear a total of 0.4 hectares of native vegetation to establish a multi-function shooting range. Aerial photos suggest that the area to be cleared is degraded (Keighery, 1994).

Given the size of the proposal area and degraded condition of the vegetation under application, it is unlikely that the area proposed to be cleared constitutes significant habitat for local fauna.

Methodology Keighery (1994)
GIS Database:
- Fauna Sac Bio Datasets 080807
- Katanning 1.4m Orthomosaic - DLI 04

(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 ten known records of Declared Rare or Priority Flora within a 10km radius of the application area. Nine of these records occur on the same Beard 1085 Vegetation Association and same soil type (Ub90) as the vegetation under application. The closest known record is a Priority 2 species, *Dryandra acanthopoda*, mapped at a distance of approximately 4km to the west of the proposal area. Three occurrences of this species occur within 10km of the proposal site.

A flora survey of the area under application was undertaken by DEC (2007) as recommended by CALM (2005), targeting the Priority 2 species, *Dryandra acanthopoda*. No rare or priority flora was observed within the area proposed to be cleared.

Given the small and degraded condition of the application area, and that no rare flora was identified during the flora survey undertaken by DEC (2007), the proposal is not likely to be at variance to this principle.

Methodology DEC (2007)
CALM (2005)
GIS Database:
- Soils, Statewide - DA 11/99
- DEFL Sac Bio datasets 080807
- Katanning 1.4m Orthomosaic - DLI 04
- GTSOUTHERN_WAHERB Sac Bio Datasets 080807

(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**
The closest known record of a Threatened Ecological Community (TEC) lies some 84km to the north of the proposed clearing, and the closest known Priority Ecological Community (PEC) is located approximately 35km to the west. All of these TECs and PECs occur on different soil types and vegetation complexes to those of the application area.

The proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:
- Soils, Statewide - DA 11/99
- Pre-European Vegetation - DA 10/01
- TEC_Points Sac Bio datasets 080807
- PEC_Points Sac Bio Datasets 080807

(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**

	Pre-European (ha)*	Current Extent Remaining (ha)*	(%)*	Conservation Status***	% in Secure Tenure
IBRA Bioregion: Avon Wheatbelt**	9,517,117	1,468,711	15.4	Vulnerable	7.6

Shire: Katanning*	153,272	17,149	11.2	Vulnerable	
Beard Unit 1085**	51,787	4,615	8.9	Endangered	0.3
Beard Unit 1087**	752	250	33.3	Depleted	24.9

* (Shepherd et al. 2001)

** (Shepherd, 2006)

*** (Department of Natural Resources and Environment 2002)

The area under application is located in the Shire of Katanning and within the Avon Wheatbelt Bioregion. The extent of pre-European vegetation remaining within these areas is 11.2% and 15.4% respectively (Shepherd et al., 2001; Shepherd, 2006).

The vegetation proposed to be cleared is a component of Beard Vegetation Associations 1085 and 1087 (Hopkins et al., 2001) of which there is 8.9% and 33.3% respectively of the pre-European extent remaining (Shepherd, 2006). These vegetation types are considered as having a conservation status of endangered and vulnerable respectively (Department of Natural Resources and Environment, 2002).

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).

The Shire of Katanning also lies 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 low representation levels of the vegetation types identified within the area under application and the degraded condition of the area under application the proposed clearing is considered to be at variance to this principle.

In order to address the further loss of vegetation within a highly cleared landscape, a condition has been imposed on the permit to offset the values of the area to be cleared.

Methodology EPA (2000)
Shepherd et al (2001)
Shepherd (2006)
Hopkins et al. (2001)
Department of Natural Resources and Environment (2002)
GIS Database:
- Pre-European Vegetation - DA 10/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00

(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**
There are no wetlands or watercourses within the area proposed to be cleared.

Two minor drains are located approximately 240m north-east and 280m south of the application area. A non-perennial watercourse lies some 550m to the north.

The proposed clearing is not in association with a watercourse or wetland, and consequently is not at variance to this principle.

Methodology GIS Database:
- Hydrography, Linear - DOE 1/2/04

(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

The proposal site occurs at an elevation of 290m - 300m AHD (Australian Height Datum) with long slope lengths and shallow topographical gradients. Mean annual rainfall is 500mm, and groundwater salinity recorded as 14,000 - 35,000 mg/L Total Dissolved Solids (TDS).

Soil types of the area are defined as Ub90: Generally rolling to hilly country with tors; lateritic mesas and buttes on some interfluvial areas: chief soils are hard neutral and acidic yellow mottled soils sometimes containing ironstone gravels.

DAWA advice (2004) received for the original application of 4ha is considered relevant to the current proposal area of 0.4ha as the two sites are located almost adjacent to each other. DAWA (2004) found the risk of salinity, wind and water erosion, and eutrophication as a result of the proposed clearing to be low, and the amount of vegetation to be removed is unlikely to cause any significant change.

Relative to the information above, the proposed clearing of native vegetation is unlikely to cause appreciable land degradation.

Methodology DAWA (2004)
Northcote et al. (1960 - 1968)
GIS Database:
- Topographic Contours, Statewide - DOLA 12/09/02
- Rainfall, Mean Annual - BOM 30/09/01
- Groundwater Salinity, Statewide - DOW
- 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 area proposed to be cleared does not lie within or adjacent to areas set aside for conservation. The closest areas of conservation include a Timber Reserve located 4.3kms north of the area under application and Coblinine Nature Reserve approximately 9.5km to the north-east.

As to the original application by the Shire of Katanning to clear 4ha, CALM (2004) advised that the proposed clearing was unlikely to impact on the nearby conservation areas as the vegetation under application was degraded. Given that the amended proposal area of 0.4ha is located almost adjacent to the original clearing application site, the above advice from CALM (2004) is considered applicable to the current application site.

Relative to the above, the proposed clearing is unlikely to be at variance to this principle.

Methodology CALM (2004)
GIS Database:
- CALM Managed Lands and Waters - CALM 1/07/05

(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 proposed clearing site lies within the Hardy Estuary_Coblinine River Catchment. The application site is located within an area of long slope lengths and shallow gradients at an elevation of 290m AHD, and has an annual rainfall of 900mm.

Due to the small area proposed to be cleared in relation to the topography, it is unlikely that the clearing of native vegetation will cause deterioration in the quality of surface water or groundwater within the local area.

Methodology GIS Database:
- Hydrographic Catchments - Catchments - DOE 23/03/05
- Rainfall, Mean Annual - BOM 30/09/01
- Topographic Contours, Statewide - DOLA 12/09/02

(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

Relative to the original application, DAWA (2004) advised that the clearing of 4ha of native vegetation could increase surface runoff; however the risk of flooding causing land degradation is low.

Given the advice from DAWA (2004), the proposed clearing of 0.4ha is unlikely to cause or exacerbate the incidence of flooding.

Methodology DAWA (2004).

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

Comments

The original clearing application was to clear 4ha within a redundant gravel extraction site where the vegetation condition ranged from excellent to degraded. In response to a letter of notification sent to the Shire of Katanning advising that the application was likely to be at variance to several of the clearing principles, the Shire amended the application by reducing the proposed clearing from 4ha to 1.5ha, and again down to 0.4ha to capture only the peripheral section of vegetation surrounding a redundant gravel extraction site. This vegetation has been subject to edge effects and is considered to be Degraded.

There have been two submissions for this proposal, both of which referred to the original application to clear 4ha of native vegetation that was considered to range from excellent to degraded condition:

The first submission advised that they were not opposed to clearing for the local pistol club, however they requested that public access to Reserve 9082 be maintained for the enjoyment of its natural assets, and that Shire support was being investigated to promote the Reserve as a flora and fauna observation site. The letter referred to acknowledgement from the Shire of Katanning that public access will be maintained, and that the pistol club's activities will not adversely affect the flora and fauna within the Reserve.

A second submission was received from South West Aboriginal Land and Sea Council, who expressed concern that Aboriginal heritage issues may not have been adequately addressed within Reserve 9082. Although no Aboriginal Sites of Significance were observed during a desktop study of the clearing application, DEC acknowledges the issues raised and strongly recommends that the Shire of Katanning consult with South West Aboriginal Land and Sea Council in relation to this. This advice will be included in the cover letter accompanying the permit.

There are two Native Title Claims over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian Newspaper constitutes legal notification of the Native Title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

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

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Recreation	Mechanical Removal		The assessable criteria have been addressed, and the proposal is not at variance to Principle (f); is not likely to be at variance to Principles (a), (b), (c), (d), (g), (h), (i) and (j); and is seriously at variance to Principle (e).

5. References

- CALM (2005). Land Clearing Proposal Advice. TRIM ref SWO24154
- DAWA (2004) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref SWO23384.
- Department of Conservation and Environment (2007). Flora Inspection for the Clearing of the Proposed Pistol Club Range Site Reserve 9082, Katanning. TRIM ref DOC32574
- 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.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- 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)