



## 1. Application details

### 1.1. Permit application details

Permit application No.: 549/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: PG & RM Hickey

### 1.3. Property details

Property: LOT 27447 ON PLAN 206855  
Local Government Area: Shire Of Narembeen  
Colloquial name: Coshes Road - Avon Loc 27447

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5		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 516: Shrublands; mallee scrub, black marlock (Hopkins et al 2001, Shepherd et al 2001).	Vegetation consisting of mallee with an understorey of Casuarina sp., Gastrolobium sp. and other groundcover species. Area subject to the proposal is in strips of no greater than 12 metres in width. Annual weed and crop species have invaded much of the understorey however there would appear to be a recent resurgence of Gastrolobium sp. (Site Visit 11 April 2005).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Stock have had uncontrolled access to the area due to the subject area not being fenced. Regeneration of Gastrolobium sp. has occurred within the subject area. Condition of vegetation is based upon assessment by DoE officer during site visit (11 April 2005).

## 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 areas under application consists of strips of vegetation between 5 and 10m long, and of varying lengths, along contour banks in grazing paddocks (DAWA 2005). The paddocks have been cleared for over 20 years and have been grazed throughout this period (DAWA 2005). The condition of the vegetation varies from fair to poor and is infested with weed and pasture species (DAWA 2005). Given the degraded condition of the area under application and the isolation of the strips of vegetation under application it is unlikely that the clearing as proposed would be at variance to this Principle.

**Methodology** DAWA (2005) Land Degradation Assessment Report (DoE Trim No NI1000)  
Site visit (11 April 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 not likely to be at variance to this Principle**  
The following Priority Listed Fauna species are known to occur in the local area (10km radius):  
White-browed Babbler (*Pomatostomus superciliosus ashbyi*, P4);  
Western Rosella, inland species (*Platycercus icterotis xanthogenys*, P3);  
Shy Heathwren, western species (*Hylacola cauta whitlocki*, P4); and  
Crested Bellbird, southern species (*Oreocitta gutturalis gutturalis*, P4)  
(CALM 2005).

The vegetation within the area under application is very sparse, patchy and consists of low lying plants

interspersed with crop stubble and weed species (CALM 2005). Therefore it is unlikely that the small area of degraded habitat would provide significant habitat values for these and other endemic species (CALM 2005).

**Methodology** CALM (2005) Land Clearing Proposal Advice (DoE Trim No E11844)  
Site visit (11 April 2005)

**(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**  
There are no known occurrences of Declared Rare Flora or Priority species within the local area (10km radius) of the area under application (CALM 2005). Given the degraded and isolated nature of the area under application, it is unlikely to support viable populations of any species of conservation significance (CALM 2005).

**Methodology** CALM (2005) Land Clearing Proposal Advice (DoE Trim No E11844)  
Site Visit (11 April 2005)

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**  
No Threatened Ecological Communities are recorded within 10km of the proposal (CALM 2005).

**Methodology** CALM (2005) Land Clearing Proposal Advice (DoE Trim No E11844)  
GIS Databases:  
- Threatened Ecological Community Database - CALM 15/07/03  
- Environmentally Sensitive Areas - DOE 22/10/04

**(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 vegetation at the site is a component of Beard Vegetation Association 516 (Hopkins et al. 2001) of which there is 43.2% of the pre-European extent remaining (Shepherd et al. 2001) and therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002). However, there is less than 30% of native vegetation covering the bioregion and only 7.1% remaining in the Shire of Narembeen.

The property is located in the agricultural area as defined by EPA Position Statement No. 2 (EPA 2000). The EPA's position on 'clearing in the agricultural area for agricultural purposes' is that any further reduction in native vegetation through clearing for agriculture cannot be supported. However, the 5 ha under application is not in a single, sustainable patch but consists of linear strips that have been severely grazed with little to no original understorey remaining. Annual weed and crop species have invaded much of the understorey leaving little representation of original vegetation structure or an ecologically productive remnant.

	Pre-European Area (ha)	Current extent (ha)	Remaining (%)	Conservation Status***	In reserves/CALM managed land(%)
IBRA Bioregion - Mallee*	4 130 281	806 971	19.5	Vulnerable	
Shire of Narembeen**	379 894	26 993	7.1	Endangered	
Beard Vegetation Association 516**	1 541 361	666 416	43.2	Least concern	35.9

\*Area within the Intensive Landuse Zone  
\*\* Shepherd et al. (2001)  
\*\*\* Department of Natural Resources and Environment (2002)

**Methodology** Shepherd et al. (2001)  
Hopkins et al. (2001)  
Department of Natural Resources and Environment (2002)  
GIS Databases:  
- Pre-European Vegetation - DA 01/01  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
- EPA Position Paper No 2 Agriculture Region - DEP 12/00

**(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 watercourses or wetlands within or associated with the area of the proposal.

**Methodology** Site visit (11 April 2005)  
GIS Databases:  
- Hydrography, linear - DOE 01/02/04  
- Hydrographic Catchments - Catchments DOE 3/4/03

**(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**

DAWA (2005) advise that the proposed clearing of approximately 5 hectares of native vegetation on Avon Location 27447 for grazing and pasture is not likely to cause appreciable on site and off site land degradation.

Three contour banks are in place to mitigate soil erosion.

**Methodology** Site visit (11 April 2005)  
DAWA (2005) (DOE TRIM Ref NI 1000)

**(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 North Karlgarin Nature Reserve is the only CALM managed conservation reserve within the local area (10km radius) of the area under application (CALM 2005). However, being >5km from the area under application, it is considered that the clearing as proposed would not have a significant impact based on the scale and nature of the clearing (CALM 2005).

**Methodology** CALM (2005) Land Clearing Proposal Advice (DoE Trim No EI1844)

**(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 area subject to this proposal has an average annual rainfall of 350mm and an evaporation rate of 2200mm per annum. This area has very little surface flow with the exception of intensive rainfall events and above average seasonal rainfall. The locally high topography of this site should result in any surface water leaving the site being relatively fresh. The high evaporation rate, the small size of the clearing proposal (5ha) combined with the lineal nature of the clearing should result in minimal recharge to groundwater. Regional groundwater at this site is saline and ranges between 7 000 and 14 000 mg/l.

**Methodology** Site visit (11 April 2005)  
GIS Databases:  
- Evaporation Isopleths - BOM 09/98  
- Isohyets - BOM 09/98  
- Hydrography, linear - DOE 01/02/04  
- Topographic Contours, Statewide - DOLA 12/09/02  
- Groundwater Salinity, Statewide - 22/02/00

**(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 vegetation subject to this proposal is located adjacent to contour banks that have been implemented for surface water management purposes. Contour banks are designed to slow down surface water sheet flow. Given that the local area has high evaporation rates and low annual rainfall, that the area to be cleared is small (5ha) and that surface water management controls have been implemented it is extremely unlikely that flooding is likely to be caused as a result of this proposal.

**Methodology** Site visit (11 April 2005)  
GIS Databases:  
- Evaporation Isopleths - BOM 09/98  
- Isohyets - BOM 09/98  
- Hydrography, linear - DOE 01/02/04  
- Topographic Contours, Statewide - DOLA 12/09/02

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

### Comments

The Shire of Narembeen has no objection to the issuing of a permit for the clearing of 5ha on Location 27447.

**Methodology** Shire of Narembeen (2005) (DOE TRIM Ref NI 1045)

## 4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Grazing & Pasture	Mechanical Removal	5	Grant	<p>The assessable criteria have been addressed and the clearing as proposed is at variance to Principle e.</p> <p>For Principle e, the vegetation representation within the Mallee bioregion (and the Shire) is lower than the 30% minimum committed to by the State Government in the National Objectives and Targets for Biodiversity Conservation (Department of Natural Resources and Environment 2002, EPA 2000). However, given the degraded nature of the vegetation under application, it is unlikely to be an ecologically productive remnant of vegetation.</p> <p>Therefore, the assessing officer recommends that the permit should be granted.</p>

## 5. References

- AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.
- 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 EI1844.
- DAWA Land degradation assessment advice. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref NI 1000.
- 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, 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.
- Shire of Narembeen (2005) Submission. DOE TRIM Ref NI 1045.