



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2065/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Mark & Katy Hodder

### 1.3. Property details

Property: LOT 3 ON DIAGRAM 68926 (House No. 4815 OLD NORTHAM CHIDLOW 6556)  
LOT 3 ON DIAGRAM 68926 (House No. 4815 OLD NORTHAM CHIDLOW 6556)  
Local Government Area: Shire Of Mundaring  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.13		Mechanical Removal	Miscellaneous

## 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: - 3003: Medium forest; jarrah & marri on laterite with wandoo in valleys, sandy swamps with tea-tree and banksia (Hopkins et al. 2001, Shepherd 2006).	The application is to clear 0.13ha of vegetation within 0.25ha on 4815 (Lot 3) Old Northam Road, Chidlow for a horse exercise arena. The property is zoned Rural Landscape Living under the local Town Planning Scheme. Vegetation in the area under application can be described as 'Good' (Keighery 1994).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation clearing description is based on a site inspection conducted 13/09/2007 (TRIM Ref: DOC34307)
Heddl vegetation complex: - Dwellingup Yalanbee and Hester Complex In Low to Medium Rainfall (Heddl et al 1980).	The vegetation is best described as Closed Tall Scrub consisting of very dense <i>Dryandra sessilis</i> (Parrot Bush) with scattered <i>Eucalyptus marginata</i> (Jarrah), <i>Corymbia calophylla</i> (Marri) and <i>Banksia grandis</i> and a very sparse understorey consisting of shrubs < 0.5 meters. Common plants recognised in the understorey included: <i>Drosera</i> sp., <i>Conostylis</i> sp., <i>Hibbertia</i> sp., <i>Kennedia</i> sp., <i>Macrozamia</i> sp. and small <i>Xanthorrhoea</i> sp.		
Mattiske vegetation complex: - Dwellingup (D4): Open forest to woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> - <i>Corymbia calophylla</i> on lateritic uplands in semiarid and arid zones (Mattiske Consulting 1998).			
	The area has a high level of disturbance to the area under application, confirmed by the prolific presence of <i>Dryandra sessilis</i> , known as an aggressive coloniser in disturbed areas. Large stumps in the area under application indicate logging		

occurred in the past.

### 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 area under application can be described as closed tall scrub consisting of very dense *Dryandra sessilis* (Parrot Bush) with scattered *Eucalyptus marginata* (Jarrah), *Corymbia calophylla* (Marri) and *Banksia grandis* and a very sparse understorey consisting of shrubs < 0.5 meters. *Dryandra* is an aggressive coloniser species indicating a high level of previous disturbance to the area under application.

Due to a lack of mature trees and density of understorey the vegetation under application is not considered to provide significant habitat for fauna.

Given previous disturbance to the area, low native species diversity and lack of suitable habitat for fauna it is considered that the original biodiversity of this area has been significantly compromised. Therefore, the proposed clearing is unlikely to comprise of a high level of biological diversity.

**Methodology**      **References:**

- Site Inspection Report (2007) (TRIM Ref: DOC34307)

GIS Databases:

- Cadastre - DLI

- Swan Coastal Plain North 20cm Orthomosaic - DLI06

#### (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**

Database searches indicate there are 44 records of 15 species of Declared Threatened or Priority Fauna within the local area (~10km radius). The closest record is the vulnerable Numbat, sighted ~2.3km east of the applied area in the Beechina Nature Reserve. A site inspection (2007) of the area under application did not identify any evidence of fauna (individuals, diggings, scats) within the area under application.

The majority of the fauna records in the local area occur within large remnants of native vegetation, namely local Nature Reserves, State Forests and National Parks. The area under application is in close proximity (~100m) to Crown Reserve 4967, a large remnant of native vegetation with an area greater than 500ha. The area to be cleared is 0.13ha of ~1.7ha of native vegetation remaining on the property.

Given the habitat in the nearby Crown Reserve and local conservation reserves, and the size of the area under application is relatively small (0.13ha) with sparse understorey and previous disturbance, it is considered unlikely the vegetation applied to be cleared comprises of significant habitat for fauna indigenous to Western Australia.

**Methodology**      **References:**

- Site Inspection Report (2007) (TRIM Ref: DOC34307)

GIS Databases:

- Cadastre - DLI

- CALM Managed Lands and Waters - CALM 1/07/05

- SAC Bio datasets (11/08/07)

- Swan Coastal Plain North 20cm Orthomosaic - DLI06

#### (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 no known Declared Rare or Priority Flora within the area under application. Declared Rare and Priority Flora mapping identifies 2 records of the rare *Acacia aphylla* and 53 records of 11 Priority species within a 10km radius of the area under application. Of these species it is considered that *Adenanthos cygnorum* subsp. *chamaephyton* (P3), *Haloragis tenuifolia* (P3), *Templetonia drummondii* (P4) and *Tetratheca pilifera* (P3) may be present, due to their proximity and habitat preferences.

*Acacia aphylla* occurs ~8.6km south of the area under application in different soil types and vegetation associations to the area under application. Given the DRF occurs in different vegetation association and soil type than the area under application it is considered the proposed clearing would not include vegetation necessary for the continued existence of DRF.

The closest record of flora of Priority flora is the Priority 4 species, *Cyanicula ixioides* subsp. *ixioides* ~0.8km south west of the applied area in the same vegetation association and soil types. Although it is considered that *Cyanicula ixioides* subsp. *ixioides* may occur in the applied area, this species is Priority flora and not considered

DRF. Priority 4 species, whilst being rare (in Australia), are not currently threatened by any identifiable factors. Given the above, it is considered that the proposed clearing is not likely to significantly impact the conservation status of this less significant species.

- Methodology**    **References:**
- Site Inspection Report (2007) (TRIM Ref: DOC34307)
- GIS Databases:**
- Heddle Vegetation Complexes - DEP 21/06/95
  - Mattiske Vegetation - CALM 24/3/98
  - Pre-European Vegetation - DA 01/01
  - SAC Bio datasets (11/09/07)
  - Soils, Statewide - DA 11/99

**(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 Threatened Ecological Communities (TEC) or Priority Ecological Communities (PEC) in the area under application. The closest community of conservation significance is a PEC ~17km west of the applied area known as 'Central Granite Shrublands'. Vegetation and soil mapping associated with the PEC differ to those associated with area under application.

In addition, the vegetation is described as closed tall scrub consisting of very dense *Dryandra sessilis* (Parrot Bush) with scattered *Eucalyptus marginata* (Jarrah), *Corymbia calophylla* (Marri) and *Banksia grandis* and a very sparse understorey consisting of shrubs < 0.5 meters. *Dryandra* is an aggressive coloniser species indicating a high level of previous disturbance to the area under application (Site Inspection 2007).

Given the distance to the nearest PEC (~17km) and the different soil types and vegetation associations, it is considered that the vegetation under application is not associated with any TEC's or PEC's. Therefore, the proposed clearing is considered unlikely to be at variance to this Principle.

- Methodology**    **References:**
- Site Inspection Report (2007) (TRIM Ref: DOC34307)
- GIS Databases:**
- Heddle Vegetation Complexes - DEP 21/06/95
  - Mattiske Vegetation - CALM 24/3/98
  - Pre-European Vegetation - DA 01/01
  - SAC Bio datasets (11/09/07)
  - Soils, Statewide - DA 11/99

**(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**

Vegetation within the area under application is identified as a component of Beard vegetation association 3003 and Mattiske vegetation complex Dwellingup 4, which have current representation levels of 61.3 and 91.5 respectively.

Vegetation within the Shire of Mundaring, Beard vegetation association and Mattiske vegetation complex are well above the State Government's National Objectives and targets for Biodiversity Conservation of 30% and are classed as least concern at 69.6%, 61.3% and 91.5% respectively.

Given the relatively small area under application (0.13ha) and the current vegetation representation levels it is considered that the vegetation under application is not significant as a remnant in an area that has been extensively cleared.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion: Jarrah Forest**	4,506,674	2,426,079	53.8	70.0
Shire of Mundaring*	64,311	44,763	69.6	NA
Vegetation type: Beard: 3003**	66,454	40,727	61.3	45.1
Heddle: Dwellingup, Yalanbee and Hester***	No Information	No Information	NA	NA

Mattiske: Dwellingup 4\*\*\*\* 1,324,003 1,211,559 91.5 NA

- \* (Del Marco et al. 2004)
- \*\* (Shepherd 2006)
- \*\*\* (EPA 2006)
- \*\*\*\* (Mattiske Consulting 1998)

**Methodology** References:

- Commonwealth of Australia (2001)
- Del Marco et al. (2004)
- EPA (2006)
- Mattiske Consulting (1998)
- Shepherd (2006)

GIS Databases:

- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Mattiske Vegetation - CALM 24/3/98
- Pre-European Vegetation - DA 01/01

**(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 tributary of Cookes Brook ~1km west of the area under application. Minor non-perennial watercourses are utilised for drainage flow during major rainfall events and as such they are not considered to be associated with wetland vegetation.

The closest major watercourse is Wooroloo Brook located ~10km north of the applied area. White Gum Gully, a tributary to Wooroloo Brook, is ~3km east of the applied area.

A site inspection of the area under application (2007) identified the vegetation as being representative of an upland vegetation community and as such, native vegetation is not considered to be growing in or associated with any watercourse or wetland.

**Methodology** References:

- Site Inspection Report (2007) (TRIM Ref: DOC34307)

GIS Databases:

- Hydrography, linear - DOE 1/2/04
- Hydrography, linear (hierarchy) - DOW

**(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 landscape of the area under application and surrounds can be described as a dissected plateau having a gentle to moderately undulating relief (Northcote et al. 1960). The chief soils are ironstone gravels with sandy and earthy matrices (Northcote et al. 1960). These soils are not considered to be at risk to wind erosion however may be at risk to water erosion.

Contour mapping identifies gentle relief in of less than 5m from the north east boundary of the property to the southern edge of the area under application. Vegetation surrounding the area under application will be retained which will help buffer the proposed cleared area against potential wind and water erosion.

Given the above and the relatively small area of native vegetation to be cleared (0.13ha), the proposed clearing is considered unlikely to cause appreciable land degradation.

**Methodology** References:

- Northcote et al. (1960)

GIS Databases:

- Soils, Statewide - DA 11/99
- Topographic Contours, Statewide - DOLA 12/09/02

**(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**

There are 8 DEC managed conservation reserves, Beechina Nature Reserve (~1.5km), Mundaring State Forest

(~3km), Needham Nature Reserve (~4.5km), Leschenaultia Conservation Park (~4.5km), Keaginine Nature Reserve (~7.5km), Un-named Nature Reserve (8.5km), Woondowing Nature Reserve (~10km) and Mundaring National Park within the local area. In addition, the area under application is in close proximity (~100m south) of a System 6 Conservation Reserve (Crown Reserve 4967) with an area greater than 500ha. Given the distance to the nearest conservation area and the relatively small area to be cleared (0.13ha), it is considered unlikely the proposed clearing will directly impact the environmental values of these areas.

The area under application and surrounding properties containing remnant vegetation may contribute to an ecological corridor linking Crown Reserve 4967 to other nearby remnants. However, 1.6ha of native vegetation will remain intact on the property which can be utilised as a corridor for fauna movement within the local area.

Given the extent of remaining vegetation in the Reserve, the relatively small area to be cleared (0.13ha) and the existing vegetation on adjacent lots and the property under application, it is considered unlikely that the proposed clearing will impact the environmental values of any adjacent or nearby conservation area.

**Methodology** GIS Databases:  
 - Cadastre - DLI  
 - CALM Managed Lands and Waters - CALM 1/07/05  
 - Swan Coastal Plain North 20cm Orthomosaic - DLI06  
 - System 6 Conservation Reserves - DEP 06/95

**(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 closest major watercourse is Wooroloo Brook ~10km north of the applied area. White Gum Gully, a tributary of Wooroloo Brook, is ~3km east of the applied area. There is a minor non-perennial watercourse ~1km west of the applied area. Minor non-perennial watercourses are utilised as drainage flow during significant rainfall events. Given the relatively small area under application (0.13ha) and distances to the watercourses it is considered clearing the vegetation under application is unlikely to cause deterioration in the quality of surface water.

The hydrogeology associated with the applied area consists of fractured and weathered rocks of low permeability, therefore, there is likely to be little recharge into regional groundwater table. Salinity Risk mapping does not identify any risk associated with the area under application, however there is a risk associated with watercourses within the local area. Given the distance to the local watercourses clearing the vegetation under application is considered unlikely to cause deterioration in the quality of surface or groundwater.

**Methodology** GIS Databases:  
 - Salinity Risk LM 25m - DOLA 00  
 - Hydrogeology, Statewide - DOW  
 - Hydrography, linear - DOE 1/2/04  
 - Hydrography, linear (hierarchy) - 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**  
 The closest watercourse to the applied area is a minor non-perennial watercourse ~1km west. Given the relatively small area under application (0.13ha) and the distance to the nearest watercourse, clearing as proposed is considered unlikely to cause or exacerbate the incidence of flooding.

**Methodology** GIS Databases:  
 - Hydrography, linear - DOE 1/2/04  
 - Hydrography, linear (hierarchy) - DOW

**Planning Instrument, Native Title, Previous EPA decision or other matter.**

**Comments**

The applicants have provided a copy of the Certificate of Title as proof of ownership of Lot 3 on Diagram 68926, Chidlow.

The applicants have obtained Development Approval from the Shire of Mundaring to keep livestock on their property. (Shire of Mundaring, 2008).

There are no Native Title Claim Areas or Aboriginal Sites of Significance associated with the area under application.

There is no other EP Act Licence issues that will affect the proposal.

There is no other EP Act Licence issues that will affect the proposal.

#### Methodology

#### References:

- Certificate of Title (TRIM Ref: DOC 33173)
- Shire of Mundaring (2008)
- GIS Databases:
  - Aboriginal Sites of Significance - DIA
  - Native Title Claims - DLI

## 4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Miscellaneous	Mechanical Removal	0.13	The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is not likely to be at variance to the clearing principles.

## 5. References

- Commonwealth of Australia (2001). National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.
- Del Marco, A., Miles, C., Taylor, R., Clarke, K. and Savage, K. (2004) Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region - Edition 1. Western Australian Local Government Association, West Perth.
- EPA (2006) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.
- Heddl, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. 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, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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.
- Shire of Mundaring (2008). Development Approval. (TRIM Ref: DOC45572 & DOC46798)
- Site Inspection Report (2007) (TRIM Ref: DOC 34307)

## 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)



