



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2370/1  
 Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Department of Agriculture and Food W.A.

### 1.3. Property details

Property: LOT 318 ON PLAN 31845 (Lot No. 318 DURACK WYNDHAM 6740)  
 Local Government Area: Shire Of Wyndham-East Kimberley  
 Colloquial name:

### 1.4. Application

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

## 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
The vegetation of the area is open Eucalypt woodland containing a wide variety of herbaceous and woody species of plants (DEC, 2007). Species that may be present on the site include an overstorey of <i>Acacia holosericea</i> , <i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i> , <i>Brachychiton diversifolius</i> , <i>Corymbia bella</i> , <i>Corymbia polycarpa</i> , <i>Eucalyptus camaldulensis</i> , <i>Eucalyptus tectifica</i> , <i>Grevillea</i> sp., <i>Gyrocarpus americanus</i> , <i>Melaleuca viridiflora</i> , <i>Owenia vernicosa</i> , <i>Pandanus spiralis</i> and <i>Tinospora smilacina</i> , a midstorey of <i>Brachychiton diversifolius</i> , <i>Calotropis procera</i> , <i>Cochlospermum fraseri</i> , <i>Crotalaria</i> aff. <i>crispata</i> , <i>Crotalaria medicaginea</i> , <i>Crotalaria cunninghamii</i> , <i>Crotalaria trifoliastrum</i> , <i>Ficus opposita</i> , <i>Petalostigma quadriloculare</i> and <i>Planchonia careya</i> and an understorey of <i>Platyzoma microphyllum</i> , <i>Sorghum</i> sp., <i>Themeda</i> sp. (DEC, 2007).	The clearing application is for 48 hectares for the purpose of a horticultural crop.  Neighbouring historical land uses, including large scale composting practices and tea tree crops, may have increased the potential for weed infestation of the site. Additionally waste products from the Sugar Mill were disposed on the adjacent block.  The area shows disturbance from fire, most likely prior to the last wet season.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The description of the vegetation to be cleared was obtained from a site visit by DEC staff on an adjacent property (DEC TRIM Ref: DOC16929), and site photos.

## 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 vegetation within the proposal area is comprised of a single, relatively uniform community represented by Beard Vegetation Association 909 (Hopkins et al, 2001). The vegetation on-site visit is open Eucalypt woodland containing a wide variety of herbaceous and woody plant species (DEC, 2007). This vegetation type occurs throughout the immediate vicinity of the local area and no specific vegetation association unique to this area was identified (DEC, 2008). The area under application has experienced degradation from fire regimes and weed invasion around the perimeter (DEC, 2008).

There are six recorded occurrences of priority flora within the local area (10km radius), for:

*Desmodium flagellare* (P1) - cracking clay;  
*Echinochloa kimberleyensis* (P1) - black soils in swamps;

Goodenia durackiana (P1) - grasslands over black clay;  
Fimbristylis laxiglumis (P2) - black clay;  
Platysace saxatilis (P2) - on sandstone cliffs; and  
Acacia richardsii (P3) - on sandstone hills and rocky areas (WA Herbarium, 2008).

The area proposed to be cleared contains a soil type of deep red and yellow siliceous sands (Northcote et al, 1960-68), habitat that is not suitable for these species.

Given the extensive range of similar habitat within the surrounding area as that under application, the proposed clearing of 48 hectares of vegetation is unlikely to have a significant impact on the biodiversity of the area.

Therefore, the proposal is not likely to be at variance to this principle.

**Methodology** DEC (2007);  
DEC (2008);  
Hopkins et al (2001);  
WA Herbarium (2008);  
GIS Database  
- Pre-European Vegetation DA 01/01

**(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 no recorded occurrences of threatened or priority fauna within the area proposed to be cleared, however the following species is protected under the Wildlife Conservation (Specially Protected Fauna) Notice 2008, and has been recorded within the local area (10km radius):  
\* Orange Leaf-nosed Bat (*Rhinonictes aurantius*) (Declared Threatened) - prefers humid caves and tree hollows (Menkhorst and Knight, 2004).  
\* Flock Bronzewing (*Phaps histrionica*) (P4) - habitat of arid zone grassy plains (Simpson and Day, 2004).  
The area proposed to be cleared does not contain habitat suitable for these species.

The area proposed to be cleared is not considered to be significant habitat for fauna as this habitat type is not limited to the site proposed for clearing and is extensively represented in the local and wider area.

Therefore, the proposal is not likely to be at variance to this principle.

**Methodology** Wildlife Conservation (Specially Protected Fauna) Notice 2006 (2);  
Menkhorst and Knight (2004);  
Simpson and Day (2004);  
SAC Bio Datasets 020508

**(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 recorded occurrences of rare flora within the local area (10km radius).

Therefore, the proposal is not likely to be at variance to this principle.

**Methodology** SAC Biodatasets 020508;  
GIS Database:  
- 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 recorded occurrences of threatened or priority ecological communities within the local area (10km radius).

Therefore, the proposal is not likely to be at variance to this principle.

**Methodology** SAC Bio Datasets 020508

**(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**

The area applied to clear is a component of Beard Vegetation Association 909 (Hopkins et. al, 2001). Approximately 1% of this Association is located within the IUCN Class I-IV and DEC managed reserves (Shepherd et al, 2001). There is 280,626 ha of this Association remaining, approximately 99.6% of the pre-European extent (Shepherd et al, 2001). As this association is well represented in the natural environment, it is of least concern for biodiversity conservation. A site visit showed this vegetation type present in surrounding undeveloped areas (DEC, 2008).

The clearing of 48 hectares of vegetation is not likely to significantly reduce the remaining extent of this vegetation association, and therefore the proposal is not likely to be at variance to this principle.

**Methodology** Hopkins et.al (2001);  
Shepherd et. al (2001);  
DEC (2008);  
GIS Database  
- 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 wetlands within the area proposed for clearing.

Two minor, ephemeral drainage lines pass through the area proposed to be cleared. The vegetation is not riparian, and the drainage lines do not possess watercourse-like characteristics, therefore the proposal is not likely to be at variance to this principle.

**Methodology** GIS Database:  
- RAMSAR, Wetlands DEC 03  
- ANCA, wetlands Environment Australia 26/3/99  
- Hydrography, Linear (hierarchy) DoW 13/7/06  
- Hydrography, Linear DoW 13/7/06

**(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 area proposed for clearing has a gentle slope of 1:3000 across the block (DAFWA, 2008). Soils occurring within the application area are the Cockatoo Sand soil type, consisting of sandy loam to sandy clay surface textures (DAFWA, 2008). Given the very gentle slope and the soil type, erosion is unlikely (DAFWA, 2008). It is not likely that the proposed clearing will exacerbate the level of erosion currently experienced within the application area.

Therefore, the proposal is not likely to be at variance to this principle.

**Methodology** DAFWA (2008);  
GIS Database:  
- 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 is approximately 8.5km north of Mirima National Park. Due to this large distance, the clearing is not likely to have an impact on the conservation values of this area.

Therefore, the proposal is not likely to be at variance to this principle.

**Methodology** GIS Database:  
- DEC Managed Lands and Waters CALM 01/06/05

**(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 area is located within the Canning Kimberley groundwater sub-area, proclaimed under the Rights

in Water and Irrigation Act 1914. The Public Drinking Water Source Area, consisting of a P1 protection zone, is located 13 km south west of the area proposed to be cleared. Due to this large distance, the clearing is not likely to cause deterioration in the quality of the groundwater.

Two minor, ephemeral drainage lines pass through the area proposed to be cleared. The vegetation is not riparian, and the drainage lines do not possess watercourse-like characteristics, therefore the proposal is not likely to be at variance to this principle.

**Methodology** GIS Database:  
- Public Drinking Water Source Areas (PDWSA) 07/02/06  
- Hydrography, Linear (hierarchy) DOW 13/7/06  
- Hydrography, Linear DOW 13/7/06

**(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 proposed clearing of 48 hectares is not likely to influence the incidence or intensity of any flooding in the area.

Therefore, the proposal is not at variance to this principle.

**Methodology** GIS Database:  
- Rainfall, Mean Annual Isohytes (1975 - 2003) - DEC 02/08/05

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

**Comments**

Water is required for the horticultural activities proposed on the property. Water requirements within the Ord River Irrigation Area are managed by the Ord Irrigation Co-operative Inc (OIC). A formal letter has been received from the OIC, stating that the OIC can issue DAFWA water entitlement for Lot 318 (DEC TRIM Ref: DOC78488).

The area under assessment has been subject to three previous referrals to the Environmental Protection Authority. None of these referrals are related to the proposal, however one is in relation to the Kununurra-Wyndham Area Development Strategy (CRN 136082). The proposal is not at variance to this strategy.

The proposed works are not listed as Prescribed Premises under the Environmental Protection Regulations 1987, therefore no licences or works approvals are required.

The proposed clearing occurs in an area that is covered by the following Registered Indigenous Heritage Sites: Kununurra Shelter (ID 14905) and Morung (ID 14903). It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Sites of Aboriginal Significance are damaged through the proposed works.

**Methodology** GIS Database:  
- Native Title Claims  
- Aboriginal Sites of Significance  
- Environmental Impact Assessments

#### **4. Assessor's comments**

**Comment**

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 at variance to Principle (j) and is not likely to be at variance to the remaining clearing Principles.

#### **5. References**

- DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM Ref: DOC52441
- Department of Environment and Conservation (2007) Site Inspection Report. Native Vegetation Conservation CPS 1723/1. DEC TRIM Ref: DOC16929
- Department of Environment and Conservation (2008) Site Inspection Report. Native Vegetation Conservation CPS 2370/1. DEC TRIM Ref: DOC52440
- FloraBase (2008) FloraBase the Western Australian Flora 05/05/2008 <http://florabase.calm.wa.gov.au/browse/profile/> DEC TRIM Ref: DOC52178
- 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.
- Menkhorst, P. and Knight, F. (2004) A Field Guide to the Mammals of Australia. 2nd Edition. Oxford University Press.
- 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., 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.
- Simpson, K. and Day, N (2004) Field Guide to the Birds of Australia. 7th Edition. Penguin Books Ltd.
- Wildlife Conservation (Specially Protected Fauna) Notice 2006 (2)

## 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)