



## **CLEARING PERMIT**

*Granted under section 51E of the Environmental Protection Act 1986*

### **PERMIT DETAILS**

Area Permit Number: 3563/1

File Number: DEC14229

Duration of Permit: From 11 April 2010 to 11 April 2012

### **PERMIT HOLDER**

Joso Durmanich

### **LAND ON WHICH CLEARING IS TO BE DONE**

Lot 37 on Diagram 56640 North River Road, North Plantations

### **AUTHORISED ACTIVITY**

The Permit Holder shall not clear more than 4.5 hectares of native vegetation within the hatched yellow on attached Plan 3563/1.

### **CONDITIONS**

Nil.

A handwritten signature in black ink, appearing to be "K Faulkner", written over a horizontal line.

Kelly Faulkner  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

11 March 2010

# Plan 3563/1



## LEGEND

### Clearing Instruments

-  Areas Approved to Clear
-  Road Centrelines
-  Cadastre for labelling
-  Camarvon 1.4m Orthomosaic - Landgate 2002



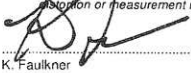
0 -50 m

Scale 1:2000

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

 Date 11/3/10  
K. Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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## 1. Application details

### 1.1. Permit application details

Permit application No.: 3563/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Joso Durmanich

### 1.3. Property details

Property: LOT 37 ON DIAGRAM 56640 (House No. 175 NORTH RIVER NORTH PLANTATIONS 6701)  
Local Government Area:  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.5		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
Beard vegetation association 308: Mosaic: Shrublands; Acacia sclerosperma sparse scrub / Succulent steppe; saltbush and bluebush. (Shepherd 2007; SAC Bio datasets 15/02/2010).	The proposal is to clear up to 4.5 hectares of native vegetation for the purpose of growing corn and banana crops.  The vegetation under application ranged in density over the site and is dominated by Acacia species and several species of Cratystylis and Halosarcia ; and one lone Eucalyptus camaldulensis tree, with sparse understorey and large expanses of weeds and bare soil. The majority of the applied vegetation is in degraded (Keighery, 1994) condition, with pockets of vegetation in good (Keighery, 1994) condition (DEC, 2010) primarily located in the northern and central areas under application.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The vegetation clearing description and condition were obtained from aerial orthomosaics and from site inspection by DEC Officers (DEC, 2010).

## 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 to clear 4.5 hectares of native vegetation in degraded to good (Keighery, 1994) condition, for the proposed increase in fruit and vegetable production, primarily corn and banana crops. Given that the majority of the vegetation is in degraded (Keighery, 1994) condition and the lack of understorey species, the area under application is not considered to provide significant habitat for fauna species, particularly when expanses of vegetation to the north of the applied area is in similar or better condition that that found within the area under application.

There are two priority flora species which have been recorded within the local area (10km radius) including

Gnephosis sp. Billabong (P1) and Rumex crystallinus (P2) which are respectively located approximately 2.5km southwest and 8km south of the applied area. Of the identified priority flora species R. crystallinus is found within a different vegetation complex and soil type to that found on site.

Gnephosis sp. Billabong is an annual herb which flowers in September - October and is found within claypans (Western Australian Herbarium, 1998). Although G.sp. Billabong is found within the same vegetation complex as that found on site, it is found in a different soil type to the applied area. Given this, and the degraded condition of the vegetation under application, it is considered unlikely that the vegetation within the applied area would include habitat which is suitable for Gnephosis sp. Billabong.

Given the above, the area under application is not considered likely to comprise a high level of biological diversity.

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

**Methodology** References:

- DEC (2010)
- Keighery (1994)

GIS databases:

- Carnarvon 1.4 Orthomosaic - Landgate 2006
- Pre European Vegetation - DA 01/01
- SAC BIO datasets - accessed 15/02/2010
- Soils, Statewide - DA 11/99
- Western Australian Herbarium (1998)

**(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 two fauna species of conservation significance which have been recorded within the local area (10km radius), being the Australian Bustard (*Ardeotis australis*, P4) and the Star Finch (*Neochima ruficauda subclarescens*, P4) which are respectively recorded approximately 4km east and 8.2km southwest of the applied area. Given that the identified bird species respectively inhabit tropical open grassland - pastoral land and grasslands near water (Simpson & Day, 2004), the degraded (Keighery, 1994) shrubland vegetation under application would not provide suitable habitat for these particular bird species.

In view of the degraded (Keighery, 1994) condition (DEC, 2010) of the applied vegetation, the lack of understorey species; and that expanses of vegetation to the north of the applied area are in a similar or better condition that that found on site, the vegetation under application is not considered likely to provide significant habitat for fauna species.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology** References:

- DEC (2010)
- Keighery (1994)
- Simpson & Day (2004)

GIS Databases:

- Carnarvon 1.4 Orthomosaic - Landgate 2006
- SAC BIO datasets - accessed 15/02/2010

**(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 records of rare flora species occurring within the local area (10km radius). The closest recorded rare flora species identified as *Eucalyptus beardiana* is located approximately 205km southeast of the applied area and is found within a different vegetation complex and soil type to that found within the area under application.

Given this, it is not considered likely that the vegetation under application includes, or is necessary for the continued existence of, rare flora.

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

**Methodology** GIS Database:

- Carnarvon 1.4 Orthomosaic - Landgate 2006
- Pre-European Vegetation
- Soils Statewide

**(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 records of Threatened Ecological Communities (TEC's) within the local area (10km radius), the closest TEC is located approximately 120km east of the area under application. This TEC identified as Western Kennedy Springs, is found within a different vegetation complex and soil type to that found within the area under application.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology GIS Database:**

- Carnarvon 1.4 Orthomosaic - Landgate 2006
- Pre-European Vegetation
- Soils Statewide
- SAC Bio Datasets accessed 15/02/2010

**(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 vegetation under application is described as Beard vegetation association 308 of which there is 99.43% of pre-European extent remaining (Shepherd 2007).

The area under application is located within the Shire of Carnarvon, within which there is 39.37% of pre-European extent remaining.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001, EPA 2000).

In view that the vegetation type under application retains more than the 30% threshold level and given the degraded (Keighery, 1994) condition (DEC, 2010) of the vegetation under application, it is not considered likely that the vegetation on site is significant as a remnant in the local area.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology References:**

- DEC (2010)
  - EPA (2000)
  - Commonwealth of Australia (2001)
  - Shepherd et al (2007)
- GIS Databases:
- Carnarvon 1.4 Orthomosaic - Landgate 2006
  - Pre-European Vegetation
  - SAC Bio Datasets accessed 15/02/2010

**(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 or watercourses mapped within the vegetation under application. The Gascoyne River is located approximately 1.2km southeast and the McNeil Claypan System is located approximately 4km east of the applied area. In addition, there are numerous non-perennial watercourses within the local area (10km radius), the closest being located approximately 340m north of the area under application.

Due to the distance to the nearest wetland and watercourse, the vegetation under application is not considered likely to be growing in, or in association with, an environment associated with a watercourse or wetland.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology GIS Databases:**

- ANCA wetlands - Environment Australia 26/3/99
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear\_1
- Hydrography, linear (hierarchy)

**(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 chief soils within the area under application are described as recent loams and sands close to the river with red earth soils and light clays on more eroded areas. The area under application is also associated with a nil to low risk of salinity.

The main land degradation risk associated with the removal of vegetation on the identified soils is generally considered to be wind erosion and water erosion. However, the risk of wind erosion could be managed and minimised by windbreaks and by maintaining a vegetated buffer zone around the site to reduce wind velocity.

During the DEC site inspection (2010) some evidence of water erosion was observed on site. However, given that the area under application is located within a low rainfall zone of 300mm per annum and that there are no wetlands or watercourses mapped within the applied area, it is considered that if appropriate measures are put in place by the proponent the risk of water erosion could be reduced and the future risk of soil erosion can be considered low and manageable.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology**

References:

- DEC (2010)
  - Northcote et al (1960-1968)
- GIS Databases:
- Rainfall, Mean Annual
  - Salinity Risk LM 25m - DOLA 00
  - 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**

There are two areas reserved for conservation purposes within a 10km radius of the area under application, identified as the Chinamans Pool Nature Reserve and the McNeil Claypan System which are respectively located 7.5km southwest and 4km east of the applied area. The McNeil Claypan System is registered as an Australian Nature Conservation Agency (ANCA) Wetland and as an Environmentally Sensitive Area.

In view of the distance between the closest area of conservation significance and the area under application, it is not considered likely that the proposed clearing would have a direct or indirect impact on the environmental values of the identified conservation reserve.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology**

GIS Databases:

- ANCA Wetlands - CALM 08/01
- CALM Regional Parks
- DEC Tenure
- Register of National Estate
- SAC Bio Datasets accessed 15/02/2010

**(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 watercourses are the Gascoyne River which is located approximately 1.2km southeast off the area under application and a non-perennial watercourse is situated approximately 340m north of the applied area. The area under application is located within the Carnarvon horticulture district, but is not located within a Public Drinking Water Source Area (PDWSA).

Given the distance to the nearest watercourse and that the vegetation under application is not associated with surface water expression and that the proposal will extend existing vegetable and fruit crops on site, it is not considered likely that the proposed clearing would cause deterioration in surface water quality.

The area under application has a nil to low risk of salinity, and given this, it is not considered likely that the proposed clearing would cause salinity resulting in the deterioration in the quality of underground water.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology**

References:

- DEC (2010)
- GIS Database:
  - ANCA wetlands - Environment Australia 26/3/99
  - Hydrography, linear\_1
  - Hydrography, linear (hierarchy) - DOW
  - Public Drinking Source Areas (PDWAs) - DOW
  - Salinity Mapping LM 25m - DOLA

**(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 area under application is located within the Carnarvon horticulture district and has neighbouring horticultural activities immediately to the east and west of the applied area. In addition, the area is located within a low rainfall zone of 300mm per annum and the closest watercourses are the Gascoyne River and a non-perennial watercourse which are respectively located approximately 1.2km southeast and 340m north of the applied area.

Given the distance to the nearest watercourse and that the proposed area is to be vegetated with fruit and vegetable crops, it is not considered likely that the proposed removal of vegetation would impact on peak flood height or duration.

The assessment recommendation is that the proposed clearing is not considered likely to be at variance to this principle.

**Methodology**

- References:
- DEC (2010)
- GIS Databases:
- Carnarvon 1.4 Orthomosaic - Landgate 2006
  - Hydrography, linear\_1
  - Hydrography, linear (hierarchy) - DOW
  - Rainfall, Mean Annual - BOM 30/09/01

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

**Comments**

Lot 37 North River Road is zoned Intensive Horticulture under the Town Planning Scheme.

The Shire of Carnarvon advise that it has no objection to the proposed clearing of native vegetation in accordance with clearing application CPS 2563/1. (TRIM ref: DOC120958).

The area under application is located within an RIWI Act Irrigation Area (Carnarvon).

The Department of Water (DoW) advise that the applicant has a current water entitlement of 72000 KL from the Carnarvon Superficial Basin (Basin A) which is currently managed in accordance with the Lower Gascoyne River Groundwater Management Strategy. However, Basin A is currently over allocated and current water allocations are to be revised in 2010 based upon usage which may result in a decrease in the applicant's water allocation due to the recouping process. DoW further advise that 27000KL of water will be required for corn and 45000KL will be needed for banana production for the proposed 4.5ha site. (TRIM ref: DOC121313).

The applicant has provided a copy of his water licence (number 45353) with an annual allocation for 72000kl which shows a water consumption of 8,288KI for 2009. This leaves a remaining water allocation of 63823KI which would cover the proposed watering requirements for the proposed corn and banana crops. (TRIM ref: DOC121498).

In a submission, the Carnarvon LCDC advised that it had no comment to make on the proposed clearing application CPS 3563/1. (TRIM ref: DOC121472).

There are no Aboriginal Sites of significance within the area under application.

**Methodology**

- References:
- Department of Water (2010)
  - Durmanich (2010)
- GIS Databases:
- Aboriginal Sites of Significance
  - Town Planning Scheme Zones\_1

**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 assessment recommendation is that the proposed clearing is not likely to be at variance to the clearing Principles.

## 5. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

DEC (2010) Site Inspection Report for Clearing Permit Application CPS 3563/1, Lot 37 on Plan 56640, North River Road, North Plantations. Site inspection undertaken 17/02/2010. Department of Environment and Conservation, Western Australia (TRIM Ref: DOC121571).

Department of Water (2010) Advice on water licence application for Lot 37 North River Road, North Plantations; Department of Water. (TRIM Ref: DOC121313).

Durmanich, J (2010) Copy of water licence and consumption for Lot 37 North River Road, North Plantations. (TRIM ref: DOC121498).

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, Western Australia.

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. (2007). 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.

Shire of Carnarvon (2010) Submission, Lot 37 North River Road, North Plantations; Shire of Carnarvon. (TRIM ref: DOC 120958).

Western Australian Herbarium (1998). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 4/03/2010).

## 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 (now DEC)
DMP	Department of Mines and Petroleum (ex DoIR)
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)