



## 1. Application details

### 1.1. Permit application details

Permit application No.: 3908/1  
 Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Nardia Violet and Eric John Marche

### 1.3. Property details

Property: LOT 10854 ON PLAN 210802 (House No. 673 GARIBALDI WILLIS WARRADARGE 6518)  
 Local Government Area:  
 Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1200		Mechanical Removal	Grazing & Pasture
780		Mechanical Removal	Plantation

### 1.5. Decision on application

Decision on Permit Application: Refuse  
 Decision Date: 18 November 2010

## 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
Mapped Beard (1980) vegetation association 49 - Shrublands; mixed heath	The propose clearing is to parkland clear 1200 hectares for grazing and pasture and clear 780 hectares for plantation. The site visit confirms the mapped vegetation types.	Pristine: No obvious signs of disturbance (Keighery 1994)	Vegetation condition determined from DEC site visit (DEC, 2010).
Beard Vegetation Association 379 - Shrublands; scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region (Shepherd, 2009)	The western and northern sections are considered to be in pristine (Keighery, 1994) condition. The eastern section shows signs of historical disturbance from goat grazing and the presence of tracks and infrastructure. The eastern section therefore varies from excellent to degraded (Keighery, 1994) condition with approximately 20% being considered degraded (DEC, 2010).		
		Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	

## 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 at variance to this Principle**  
 The proposed clearing is to parkland clear 1200 hectares for grazing and pasture and clear 780 hectares for plantation. The site visit confirms the mapped vegetation types. The western and northern sections are considered to be in pristine (Keighery, 1994) condition. The eastern section shows signs of historical disturbance from goat grazing and the presence of tracks and infrastructure. The eastern section therefore



varies from excellent to degraded (Keighery, 1994) condition with approximately 20% being considered degraded (DEC, 2010).

The vegetation consists of sections of sparse low heath over exposed laterite ridges and breakaways, dense Banksia heath over white sand, sparse low woodland of Eucalyptus todtiana over white sand with a mid dense low scrub and mid dense tree mallee thicket over laterite and white sand. Species noted during the site visit include Eucalyptus species including E. todtiana and E. wandoo, Banksia candolleana, Banksia grossa, Banksia attenuata, Banksia sessilis, Nuytsia floribunda, Xanthorrhoea species and Xylomelum angustifolium. The Eucalypt species were predominately mallee in structure with few large enough to offer cockatoo size hollows. (DEC, 2010).

Given the very large size and predominately excellent to pristine (Keighery, 1994) condition of the vegetation under application (DEC, 2010) it is considered that the vegetation under application comprises suitable habitat for a number of fauna species, including small mammals, reptiles and bird species (including Carnaby's black cockatoo).

Within the local area (10km radius) there are eight rare flora and 25 priority flora species that have been recorded in the same vegetation and soil type as the area under application. The closest rare flora being Hakea megalosperma is 700m to the south east. Additionally there are three priority flora species recorded within the application area being Hemiandra hancocksiana, Banksia kippistiana and Banksia splendida. DEC considers that the area under application potentially provides suitable habitat for the rare flora and is known to provide suitable habitat for priority flora species.

Given the above the proposed clearing is at variance with this principle.

#### Methodology

##### References:

DEC (2010)

Keighery (1994)

##### GIS Databases:

- DEC Tenure

- SAC Bio datasets - accessed 30/08/2010

- Mattiske Vegetation (01/03/1998)

- Heddle Vegetation Complexes - DEP 22/06/95

- Pre European Vegetation - DA 01/01

- Soils, Statewide DA 11/99

- Clearing Regulations, Environmentally Sensitive Areas (2009)

- Current Extent of Native Vegetation (NLWRA 2001)

#### **(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 at variance to this Principle**

During the site visit DEC officers sighted numerous native wildlife including a flock of Calyptorhynchus latirostris (Carnaby's black cockatoo), 28 parrots, willie wagtail, Black faced cuckoo-shrike, four Wedgetail eagles and a large population of Western grey kangaroos (DEC, 2010). Carnaby's black cockatoo is listed as threatened and is specially protected under the Wildlife Conservation Act 1950 and listed as endangered and specially protected under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

The vegetation consists of sections of sparse low heath over exposed laterite ridges and breakaways, dense Banksia heath over white sand, sparse low woodland of Eucalyptus todtiana over white sand with a mid dense low scrub and mid dense tree mallee thicket over laterite and white sand. Species noted during the site visit include Eucalyptus species including E. todtiana and E. wandoo, Banksia candolleana, Banksia grossa, Banksia attenuata, Banksia sessilis, Nuytsia floribunda, Xanthorrhoea species and Xylomelum angustifolium. The Eucalypt species were predominately mallee in structure with few large enough to offer cockatoo size hollows. (DEC, 2010).

The area under application is located within the distribution range of the Carnaby's black-cockatoo which inhabit uncleared or remnant Eucalyptus and Banksia woodlands and coastal scrub, foraging on the seeds and nectar from the flowers of Eucalypts, Banksia, Grevillea and Hakea species (Burbidge, 2004). The vegetation under application consists of suitable feeding habitat for Carnaby's black cockatoo.

Given the very large size and predominately excellent to pristine (Keighery, 1994) condition of the vegetation under application (DEC, 2010) it is considered that the vegetation under application comprises suitable habitat for a number of fauna species, including small mammals, reptiles and bird species.

Given the above the proposed clearing is at variance with this principle.

#### Methodology

##### References:

Burbidge (2004)

DEC (2010)



Keighery (1994)

GIS Databases:

- Mattiske Vegetation (01/03/1998)
- Heddle Vegetation Complexes - DEP 22/06/95
- Pre European Vegetation - DA 01/01
- Soils, Statewide DA 11/99
- SAC Bio datasets - accessed 30/08/2010
- Wildlife Conservation (Specially Protected Fauna) Notice 2010(2)

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments Proposal may be at variance to this Principle**

Within the local area (10km radius) there are eight rare flora species that have been recorded in the same vegetation and soil type as the area under application. The closest rare flora being Hakea megalosperma is recorded from 700m to the south east.

The majority of the vegetation under application is in excellent to pristine (Keighery, 1994) condition (DEC, 2010) and is considered to potentially provide suitable habitat for the rare flora outlined above.

Given the above the proposed clearing may be at variance with this principle.

**Methodology**

References:

DEC (2010)

Keighery (1994)

GIS Databases:

- Mattiske Vegetation (01/03/1998)
- Heddle Vegetation Complexes - DEP 22/06/95
- Pre European Vegetation - DA 01/01
- Soils, Statewide DA 11/99
- SAC Bio datasets - accessed 30/08/2010

**(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 records of threatened or priority ecological communities within the local area (10km radius).

Given this the proposed clearing is not likely to be at variance with this principle

**Methodology**

References:

GIS Databases:

- SAC Bio datasets - accessed 30/08/2010

**(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 at variance to this Principle**

Reference:

GIS Databases:

- ANCA wetlands - Environment Australia 26/3/99
- CALM Managed Lands and Waters - CALM 01/06/05
- Clearing Regulations, Environmentally Sensitive Areas (2009)
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06
- Ramsar wetlands - DEC 03

**Methodology**

References:

Commonwealth of Australia (2001)

Keighery (1994)

Shepherd (2009)

GIS Databases:

- Mattiske Vegetation (01/03/1998)
- Heddle Vegetation Complexes - DEP 22/06/95
- SAC Bio datasets - accessed 30/08/2010
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04



- Pre European Vegetation - DA 01/01
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

**(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 local area (10 km radius). Multiple minor non-perennial watercourses occur to the west of the area under application with the closest located 400m to the north west. Given the distance to the nearest watercourse the proposed clearing is not likely to be at variance with this principle

**Methodology Reference:**

GIS Databases:

- ANCA wetlands - Environment Australia 26/3/99
- CALM Managed Lands and Waters - CALM 01/06/05
- Clearing Regulations, Environmentally Sensitive Areas (2009)
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06
- Ramsar wetlands - DEC 03

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal is at variance to this Principle**

Mapped soil type Wd9 is described as Broad valleys and undulating interfluvial areas with some discontinuous breakaways and occasional mesas; lateritic materials mantle the area: chief soils are sandy acidic yellow mottled soils, (Dy5.81) containing much ironstone gravel in the A horizons, and (Dy5.84), both forming a complex pattern with each other and with lateritic sandy gravels (KS-Uc2.12). Associated are leached sands (Uc2.21) underlain by lateritic gravels and mottled clays that occur at a progressively greater depth down slope.

The area under application is mapped with a low risk of salinity over small parts of the area under application. The soils are typically white sands of varying depth over laterite with exposed ridges of laterite (DEC, 2010). The sandy soils found on site are typically prone to wind erosion and the exposed ridges of laterite are prone to water erosion. The Commissioner of Soil and Land Conservation advises that the proposed clearing is unlikely to cause appreciable land degradation in the form of salinity. However the sandy soils on upper slopes have a high risk of wind erosion and a high risk of water erosion was identified in areas situated below steep iron stone and gravelly slopes. Therefore the proposed clearing is at variance with principle g for soil erosion (Commissioner of Soil and Land Conservation, 2010).

Given the high risk of wind and water erosion and the scale of the area proposed to be cleared, the proposed clearing is at variance with this principle.

**Methodology References:**

- Commissioner of Soil and Land Conservation (2010)
- DEC (2010)
- Northcote (1968)
- GIS database:
  - Annual Evaporation Contours (Isopleths) - WRC 29/09/98
  - Hydrogeology, statewide - DOW 13/07/06
  - Hydrography, linear - DOW 13/7/06
  - Salinity Risk LM 25m - DOLA 00
  - Soils, Statewide DA 11/99
  - Topographic contours statewide - DOLA and ARMY 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 may be at variance to this Principle**

There are two conservation areas within the local area (10km radius), Alexander Morrison National Park located 700m to the south east and Sorgiovanni Nature Reserve located 5kms to the north east (DEC, 2010). Given the limited vegetation cover remaining in the local area (approximate 40%), the size (1980 hectares) and excellent to pristine (Keighery, 1994) condition of the vegetation under application, it is considered that the area under application provides a substantial wildlife corridor to nearby conservation reserves. The proposed clearing is considered likely to impact on these nearby reserves by limiting the dispersal of flora and fauna.

Given the above the proposed clearing may be at variance with this principle.

**Methodology References:**



DEC (2010)  
Keighery (1994)  
GIS Databases:  
- CALM Managed Lands and Waters - DEC Sept 08  
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02  
- System 1 to 5 and 7 to 12 areas - DEC 11/7/06

**(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**

There are no wetlands within the local area (10 km radius). Multiple minor non-perennial watercourses occur to the west of the area under application with the closest located 400m to the north west. Given the distance to the nearest surface water body and the white sandy soils found on site, the proposed clearing is not likely to be at variance with this principle.

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

**Methodology**

References:  
GIS Databases:  
- Hydrography, linear - DOW 13/7/06  
- Soils, Statewide DA 11/99  
- Topographic contours statewide - DOLA and ARMY 12/09/02  
- Hydrogeology, Statewide 05 Feb 2002

**(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**

Given the distance to nearby watercourses, low relief and white sandy soils the proposed clearing is not considered likely to cause or exacerbate the incidence or intensity of flooding.

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

**Methodology**

References:  
GIS Databases:  
- Hydrography, linear - DOW 13/7/06  
- Soils, Statewide DA 11/99  
- Topographic contours statewide - DOLA and ARMY 12/09/02  
- Hydrogeology, Statewide 05 Feb 2002

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

**Comments**

The area under application falls within the Arrowsmith RIWI Groundwater Area. Department of Water have no comment or advice regarding the proposed clearing (DOW, 2010).

In a submission, the Shire of Coorow advised that it has no comment on the proposed clearing (Submission, 2010).

Carnaby's black cockatoo has the status of endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. Actions which are likely to have a significant impact on the species require approval under this legislation. The Commonwealth Department of Sustainability, Environment, Water, Population and Communities has indicated that the clearing of more than one hectare of foraging habitat on the Swan Coastal Plain may be a controlled action.

The area under application falls within the agricultural area defined in EPA Position Statement No. 2 (EPA 2000). EPA Position Statement No. 2 (EPA 2000) states that significant clearing of native vegetation has already occurred on agricultural land, leading to a reduction in biodiversity and increase in land salinisation, and therefore any further reduction in native vegetation through clearing for agriculture cannot be supported. The EPA (2000) recommends that all existing native vegetation be protected from passive clearing through, for example, grazing by stock or clearing by other means.

In exceptional circumstances the EPA would consider supporting clearing for agriculture within this region if:

(a) There are alternative mechanisms for protecting biodiversity.

(b) The area to be cleared is relatively small, depending on the scale at which biodiversity changes over the area, including extent of vegetation in the surrounding area and recognising that values will vary for different ecosystems.

(c) The proponent demonstrates that the elements set out in Section 4.3 of Position Statement No2 are being

met. This will require extensive local and regional biodiversity work.

(d) Land degradation, including aquatic environments and threatening processes, such as dieback, salinisation or disruption of catchment processes, on-site and off-site would not be exacerbated.

#### Methodology

References:

DOW (2010)

EPA (2000)

Submission (2010)

GIS Databases:

- Cadastre - Landgate Dec 07

- Town Planning Scheme Zones - MFP 31/08/98

- RIWI Act, Groundwater Areas - DoW 13/07/06

## 4. References

Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.

Commissioner of Soil and Land Conservation (2010) Advice. Department of Agriculture and Food. DEC Ref: A338563

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

Department of Water (2010). RIWI Advice. DEC Ref: A336683.

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. (2009) 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.

Submission (2010) Shire of Coorow. DEC Ref: A333106.

## 5. 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)