



## 1. Application details

### 1.1. Permit application details

Permit application No.: 3653/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Giuseppe Duina and Corralie Mehew

### 1.3. Property details

Property: LOT 16 ON DIAGRAM 95437 ( KENDENUP 6323)  
Local Government Area:  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
7.13		Grazing	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 968 described as a Medium woodland; jarrah, marri & wandoo (Shepherd, 2007).	The native vegetation under application is for 7.13 hectares for the purpose of grazing.  The vegetation on site is dominated by wandoo woodland, marri and the mallee form of <i>Eucalyptus falcata</i> . The vegetation on site also includes an overstorey of jarrah, an understorey of wattle, balga, hakea, native peas, dryandra and broom bush and a ground layer of sedges and multiple orchid species. The vegetation is considered to be in 'excellent' (Keighery, 1994) condition (Land For Wildlife, 2003).	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994)	For the purpose of this assessment, the vegetation is considered to be in pre-disturbance condition.  Vegetation comparative to the pre-disturbance condition was observed in retained bush strips adjacent to the area under application (DEC, 2010) and based on this and the vegetation description within the Land For Wildlife report undertaken in December 2003 (Land For Wildlife Report, 2003)), the majority of the vegetation under application is considered to be in 'excellent' (Keighery, 1994) condition

## 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
	<p>This assessment will consider the environmental values of the vegetation under application as pre-clearing based on information collected during the Land for Wildlife site inspection undertaken in December 2003 and from the condition of the remaining native vegetation adjacent to the area under application observed during the DEC site inspection undertaken in March 2010. It was noted during the DEC site inspection in March 2010 that the understorey was recently cleared. Based on this the condition of the vegetation under application was considered to be in 'excellent' (Keighery, 1994) condition.</p> <p>The applicant has amendment the application and reduced the size of the area to be cleared from 11.82 hectares to 7.13 hectares.</p> <p>The vegetation under application encompasses 7.13 hectares of native vegetation in 'excellent' (Keighery, 1994) condition comprising a wandoo woodland, marri and the mallee form of <i>Eucalyptus falcata</i> with an open understorey. The vegetation on site also includes jarrah, wattle, balga, hakea, native peas, dryandra, broom bush, sedges and multiple orchid species. The vegetation is considered to be in 'excellent' (Keighery, 1994) condition (Land For Wildlife, 2003 and DEC, 2010).</p> <p>There are 5 known records of fauna of conservation significance within the local area (10km radius), including the Brush-tailed phascogale (<i>Phascogale tapoatafa ssp</i>), Carnaby's black cockatoo (<i>Calyptorhynchus latirostris</i>), Baudins black cockatoo (<i>Calyptorhynchus baudinii</i>) and the Forest red-tailed black cockatoo (<i>Calyptorhynchus banksii naso</i>). The vegetation under application consists of suitable foraging and nesting</p>

habitat for Carnaby's black cockatoo, Baudins black cockatoo and the Forest Red-tailed black cockatoo.

There are 3 rare and 26 priority flora species which have been recorded within the local area, with the closest of each being located approximately 4.5km east and 1.3km north of the area under application, respectively. All of the rare flora species in the local area occur in different vegetation and soil types as those contained within the area under application and are therefore unlikely to occur in the applied area. There is the potential for some of the priority species to occur within the applied area as they occur within the same vegetation and soil types as those contained within the area under application.

Whilst the area under application has recently been subject to impacts through clearing (that is the subject of an investigation), if appropriately managed its environmental values are expected to recover.

Given the above and that the local area is highly cleared, with less than 30% native vegetation remaining, the proposed clearing is considered to be at variance to this principle.

**Methodology** References:  
DEC (2010)  
Keighery (1994)  
Land For Wildlife (2003)  
GIS Databases:  
- SAC Bio datasets - accessed 30/03/2010

**(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 may be at variance to this Principle**

The vegetation under application encompasses 7.13 hectares of native vegetation that has the capacity to regenerate to 'excellent' (Keighery, 1994) condition comprising a wandoo woodland, marri and the mallee form of *Eucalyptus falcata* with an open understorey. The vegetation on site also includes jarrah, wattle, balga, hakea, native peas, dryandra, broom bush, sedges and multiple orchid species. The vegetation was considered to be in 'excellent' (Keighery, 1994) condition (Land For Wildlife, 2003 and DEC, 2010).

Within the local area (10km radius) there are records of Carnaby's black cockatoo (*Calyptorhynchus latirostris*), Baudins black cockatoo (*Calyptorhynchus baudinii*) and the Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*). The area under application is located within the distribution range of the Carnaby's black-cockatoo (*Calyptorhynchus latirostris*) 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 Land for Wildlife (2003) report advises that there was a Carnaby's black cockatoo nesting on the property. Additionally the vegetation under application consists of suitable foraging and nesting habitat for Carnaby's black cockatoo. The Carnaby's black cockatoo is listed as a threatened species under the *Wildlife Conservation Act 1950*.

Additionally the applicant advises that they do not intend to clear any trees which provide habitat for Carnaby's black cockatoo, Baudins black cockatoo or the Forest red-tailed black cockatoo. The applicant also advises that breeder boxes have been fastened to mature trees to reduce impacts on fauna breeding habitat (Submission, 2010).

The vegetation within the applied area comprises suitable foraging and nesting habitat for a number of fauna species, with 81 bird species found on the property including Carnaby's black cockatoo. Additionally the understorey comprises of suitable habitat for small mammals and reptiles with evidence of fallen timber and logs lying within the property (Land For Wildlife, 2003).

Given that the understorey has been recently cleared, the size and potential for the vegetation under application if appropriately managed to provide suitable habitat for a range of fauna species, including species of conservation significance, it is considered that the proposed clearing is at variance to this principle.

**Methodology** References:  
Burbidge (2004)  
DEC (2010)  
Keighery (1994)  
Land For Wildlife (2003)  
GIS Databases:  
- SAC Bio datasets - accessed 30/03/2010

**(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**

Three rare flora species have been recorded within the local area (10km radius) including *Darwinia meeboldii*,

*Darwinia wittwerorum* and *Drakaea confluens*. All recordings of the rare flora species in the local area have different surrounding vegetation and soil types as those contained within the area under application.

Given that the preferred habitat is not present for any of the rare flora the proposed clearing is not likely to be at variance with this principle.

**Methodology** GIS Databases:  
 - Soils, Statewide DA 11/99  
 - SAC Bio datasets - accessed 30/03/2010

**(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 known records of Threatened Ecological Communities (TEC) within a 10km radius of the proposed clearing.

Given the above, it is unlikely that the proposed clearing will impact on any known TEC's.

**Methodology** GIS Databases:  
 - SAC Bio datasets - accessed 30/03/2010

**(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 may be at variance to this Principle**

	Pre-European (ha)	Current extent (ha)	Remaining %	(%) In reserves DEC Managed Land
IBRA Bioregions* Jarrah Forest^	4 671 007	2 601 026	55.68	71.15
Shire* Plantagenet	489 445	233 852	47.78	62.83
Beard Vegetation Association* 968	301 120	103 386	34.33	56.55
Beard Vegetation Association with Bioregion* 968	145 229	76 772	52.86	51.79

\* (Shepherd et al. 2007)

^ Area within Intensive Land Use Zone

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). The local area (10km radius) is a predominately cleared landscape with less than 30% remaining vegetated.

The vegetation proposed to be cleared is considered to have the capacity to return to 'excellent' (Keighery, 1994) condition.

Given the above, the size of the proposed clearing, the extent of vegetation remaining in the local and bioregional areas and the extent of vegetation complexes remaining, the area under application may be at variance to this principle.

**Methodology** Commonwealth of Australia (2001)  
 Shepherd (2007)  
 GIS Databases:  
 - 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 numerous minor non-perennial watercourses within the local area (10km radius), with the closest being 85 m east and 150 m north of the area under application. Lake Matilda and an un-named wetland

(Pabelup suite) are located 8 km west and 6.5 km south east respectively.

The non-perennial watercourse located 85m to the east is a small isolated watercourse, which does not connect with the area under application. Additionally the area under application is located in the up slope section of the landscape and the vegetation is not associated with the nearby watercourses.

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
  - CALM Managed Lands and Waters - CALM 01/06/05
  - 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
  - South Coast Significant Wetlands - WRC 10/06/2003

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

**Comments** **Proposal may be at variance to this Principle**  
The area under application is mapped as soil type Uf2 described as Gently undulating: chief soils are hard neutral yellow mottled soils (Dy3.82) containing ironstone gravels. Associated are small areas of (Dy5.42) soils in low-lying situations; and small areas of soils of unit Ub93 on slopes (Northcote, 1968). The area under application has a medium relief (225m to 245m AHD).

The Commissioner of Soil and Land Conservation advises that the proposed clearing of the 7.13 hectares is likely to have limited salinity impact and may be at variance with principle g (Commissioner of Soil and Land Conservation, 2010).

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

- Methodology** References:
- Northcote (1968)
  - Commissioner of Soil and Land Conservation (2010)
- GIS database:
- Average Annual Rainfall Isohyets - 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
  - Hydrogeology, Statewide 05 Feb 2002

**(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 numerous areas reserved for conservation purposes within the local area (10km radius), the closest being Land For Wildlife site 3168 located directly adjacent and Stirling Range National Park located 1.1km north east.

Although there is a large expanse of remnant vegetation to the east of the applied area (Stirling Range National Park), the applied area is situated in a landscape which has been predominately cleared. In considering the surrounding area, the previously 'excellent' (Keighery, 1994) condition (Land For Wildlife, 2003 and DEC, 2010) of the native vegetation within the applied area and the fragmentation of the area under application from local conservation reserves, it is considered likely to provide a wildlife corridor to these conservation areas.

Given the above it is considered likely that the proposed clearing may have a direct impact, through increased habitat fragmentation, on the environmental values of adjacent and nearby conservation areas and therefore may be at variance to this principle.

- Methodology** References:
- DEC (2010)
  - Keighery (1994)
  - Land For Wildlife (2003)
- 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 at variance to this Principle**

The Commissioner of Soil and Land Conservation advises that the proposed clearing is likely to have limited salinity impact (Commissioner of Soil and Land Conservation, 2010). The area has a medium relief and slope north towards the non-perennial watercourse located 150 north of the area under application. Additionally there is little vegetation between the area under application and the watercourse.

Given the above proposed clearing may cause some deterioration in the groundwater and surfacewater quality and is considered to be may be at variance with this principle.

**Methodology References:**

Commissioner of Soil and Land Conservation (2010)

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 medium relief and hard 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 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**

An application was received on 19 March 2010 to clear 11.82 hectares for grazing. The application area is currently under investigation (ICMS 16053) as clearing has occurred over the 11.82 hectares under application. On 24 June 2010 the applicant amended the application and reduced the size of the area to be cleared from 11.82 hectares to 7.13 hectares.

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 the Environment, Water, Heritage and the Arts (DEWHA) 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.

The property's previous owners registered the property with Land for Wildlife for conservation, protection and a place to study biodiversity and nesting birds (Land for Wildlife, 2003). The Land For Wildlife report noted the presence of gastrolobium within the vegetation on the property and gastrolobium is known to be toxic to grazing stock if ingested.

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

The Commissioner of Soil and Land Conservation advised that within the original application area the proposed clearing of the western section may have a significant impact on ground water by increasing recharge and subsequently saline discharge down gradient and is likely to be seriously at variance with principle g. Additionally the proposed clearing of the eastern section is likely to have limited salinity impact and may be at variance with principle g (Commissioner of Soil and Land Conservation, 2010).

The applicant has amended the application reducing the land degradation risk by excluding the western section from the application area. Additionally the reduction of the size to 7.13 hectares will result in reduced groundwater recharge and limited salinity impact.

**Methodology**    References:  
Commissioner of Soil and Land Conservation (2010)  
EPA (2000)  
Land For Wildlife (2003)  
Submission (2010)  
GIS Databases:  
- Cadastre - Landgate Dec 07  
- Town Planning Scheme Zones - MFP 31/08/98

#### 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: A303159
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- 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.
- Land For Wildlife (2003), Property Assessment Report, Lot 16, Young Road, Kendenup. DEC Ref A300088
- 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.
- Submission (2010) CPS 3653/1 Application amendment. DEC Ref: A310047, A312272 and A312781

#### 5. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management (now DEC)
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)
DoW	Department of Water
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)