



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2538/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: MR Jonathan Patrick Andel A.B.A CIVIL

### 1.3. Property details

Property: LOT 2 ON DIAGRAM 48404 (Lot No. 2 BOYANUP BOYANUP 6237)  
LOT 120 ON PLAN 82207 ( BOYANUP.6237)

Local Government Area: Shire Of Capel

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.1		Mechanical Removal	Extractive Industry

## 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 under application consists of Beard vegetation association 1000, which is described as a mosaic of medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (Melaleuca spp.) (Shepherd, 2007).	The vegetation within the proposed area to be cleared is considered to be in a degraded (Keighery 1994) condition (DEC 2008a). There are large areas of bare sand and the remaining vegetation is scattered. The application area is described as primarily scattered jarrah over banksia spp, and kunzea over mixed low shrubs (DEC 2008b).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition and description of the vegetation was obtained via the use of aerial mapping systems and a site inspection conducted by DEC (2008a).
The vegetation under application is also mapped as consisting of the Heddle complex 'Bassendean Complex-Central & South' which is described as : Vegetation ranges from woodland of Eucalyptus marginata (Jarrah) - Allocasuarina fraseriana (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of Eucalyptus marginata (Jarrah) to Eucalyptus todtiana (Pricklybark) in the vicinity of Perth (Heddle, 1980).			

## 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 proposed area to be cleared is for 1.1 hectares is considered to be in a degraded (Keighery 1994) condition (DEC, 2008a) mainly consisting of scattered trees with large areas of bare sand.

There were 60 recorded occurrences of priority listed flora within the local area (10km radius) and 2 species of rare flora. Orthomosaic mapping shows the local area to have approximately 40% of remaining vegetation, with about half of that being in DEC managed lands.

The vegetation proposed to be cleared is a degraded part of a larger remnant (~35 ha in size) which may be of importance as a stepping stone and habitat for fauna within the local area. However, as the vegetation under application is the most degraded part the remnant, it is considered unlikely that the applied vegetation comprises a high level of biological diversity.

**Methodology** DEC (2008a)  
Keighery (1994)  
GIS DataSets:  
- Bunbury 50cm Orthomosaic Landgate 2006  
- SacBioDataSets (accessed 29/07/08)

**(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**  
Within the local area (10km radius) there are 6 recorded fauna species. The closest recorded occurrence of these fauna species were as follows: The Chuditch (*Dasyurus geoffroii*) was recorded 5.8km south west of the application area. The Western Ringtail Possum (*Pseudocheirus occidentalis*) was recorded 6.1km south east. The Brush-Tailed Phascogale (*Phascogale tapoatafa*) was recorded 6.2km north. The Quenda (*Isodon obesulus fuciventer*) was recorded 8.9km north and Baudin's Black-Cockatoo (*Calyptorhynchus baudinii*) was recorded 8.9km from the application area.

Of these species, the Chuditch, which occupies large home ranges and can utilize bush remnants, may frequent the remnant of which the application area is a part. Baudin's black-cockatoo and the Western ringtail possum are known to use the tree hollows as habitat, such as those present on the wider remnant area. The wider remnant area may also be suitable habitat for the Quenda, as this species prefers vegetation near watercourses or around swamps.

The vegetation proposed to be cleared is a degraded part of a larger remnant (~35 ha in size). The proposed clearing is likely to incrementally degrade the remnant, however, the vegetation under application itself is not likely to comprise significant habitat for fauna.

**Methodology** GIS DataSets:  
- Bunbury 50cm Orthomosaic Landgate 2006  
- Calm Managed Lands and Waters (1/11/03)  
- SacBioDataSets (accessed 29/07/08)

**(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**  
The vegetation under application is known to be in a degraded (Keighery 1994) condition. Within the local area (10km radius) there were 2 known species of rare flora recorded, *Drakaea elastica* and *Eleocharis keigheryi*.

*Drakaea elastica* was confirmed to occur within close proximity to the 1.1 hectares of vegetation under application during a site inspection (DEC 2008a). Ten individual plants were identified (DEC 2008a). *Drakaea elastica* is listed on the EPBC Act as having an endangered status and under the Wildlife Conservation Act this species is listed as rare, thus being acknowledged by the State and Commonwealth.

Priority listed flora species which have been mapped in the local area with similar soil types include (DEC 2008b):

- *Acacia semitrull* (P3)
- *Synaphea odocoileo* (P1)
- *Pultenaea skinneri* (P4)
- *Franklandia triarista* (P4)
- *Caustis* sp Boyanup(P1)
- *Rhodanthe pyrethrum* (P3)

Due to the disturbed nature of the vegetation proposed to be clear the area proposed to be cleared is unlikely to be suitable habitat for *Drakaea elastica* (DEC 2008b).

**Methodology** DEC (2008a)  
DEC (2008b)  
Keighery (1994)

GIS DataSets:

- Clearing Regulations-Environmental Sensitive Area (30/05/05)
- Hydrography, linear (hierachy) (08/06/06)
- SacBioDataSets (accessed 29/07/08)
- Soils, statewide (1/11/99)

**(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 at variance to this Principle**

There are no known Threatened Ecological communities (TEC's) located within the area under application. The closet TEC, Eucalyptus calophylla woodland, is located 4km north and is not likely to be impacted by the proposed clearing of 1.1 hectares of native vegetation

**Methodology GIS DataSets:**

- Bunbury 50cm Orthomosaic Landgate 2006
- SacBioDataSets (accessed 29/07/08)

**(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 local area (10km radius) has approximately 40% remaining vegetation, with about half of this in DEC managed lands. The proposed clearing is for 1.1 hectares of native vegetation, which is considered to be in a degraded (Keighery 1994) condition, with large section of bare sand. The vegetation within the application area is mainly scattered jarrah over various Banksia spp, and Kunzea over mixed shrubs (DEC 2008a; DEC 2008b).

As the table below indicates, Beard Vegetation Association 1000 has 28.7% of pre-European vegetation remaining and within the Bassendean complex-central & south there is 27% of remaining vegetation. These percentages are below the recommended 30% threshold (EPA, 2000).

The vegetation under application does form part of a larger area of remnant vegetation (~35 ha in size). However, given the degraded condition of the vegetation under application, the proposed clearing is unlikely to have a significant impact on the larger remnant.

Vegetation	Pre-European	Current Extent	% remaining
*Beard 1000	99836	28636	28.7
* Shire of Capel	55720	19084	34.3
* Swan Coastal Plain Bioregion	1501211	579227	38.6
**Hedde Bassendean Complex-Central & South	87477	23624	27.0
* Shepherd (2006)			
** Hedde et al. (1980)			

- Methodology** DEC (2008a)  
DEC (2008b)  
EPA (2000)  
Hedde et al. (1980)  
Keighery (1994)  
Shepherd et al. (2006)  
GIS DataSets:  
- Bunbury Landgate Orthomosaic 2006  
- Hedde Vegetation Complexes - DEP 22/06/95  
- SacBioDataSets (accessed 29/07/08)

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

The Preston River is located 1.3km east of the application area. The area is also situated 1.6km north of an area subject to inundation. There are also two swamps located close by.

Additionally, the application area is 10 metres north of a resource enhanced wetland and 25 metres west of an EPP lake. Due to the degraded condition of the vegetation under application and the small size of the proposed clearing (1.1ha), it is considered unlikely that the vegetation under application is serving as a significant buffer to these wetlands. The vegetation under application is the most degraded section of vegetation on the property and the area directly west of the applied area contains wrecked cars and rubble (Trim Ref: DOC69662). However given the proximity of the application area to the aforementioned wetlands, the proposed clearing may be at variance to this principle.

**Methodology GIS DataSets:**

- Bunbury Landgate Orthomosaic 2006
- Clearing Regulations-Environmentally Sensitive Areas (30/05/05)
- Geomorphic wetlands (Classification) Swan Coastal plain (12/09/06)
- Hydrography, Lakes (medium scale, 250k GA)
- Hydrography, Linear (08/06/06)

**(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**

Rainfall within the local area is 900mm annually. The soil type (Wd6) is described as sandy acidic mottled soils, some of which contain ironstone gravel. The current groundwater salinity levels are between 1000-3000 TDS Mg/L. The proposed clearing of 1.1 hectares of native vegetation is not likely to significantly increase the risk of salinisation occurring.

The proposed clearing is on a sandy ridge that is exposed to prevailing winds. However due to the size of the clearing, wind erosion is considered unlikely.

**Methodology GIS DataSets:**

- Rainfall, Mean Annual (30/09/01)
- Soil, statewide (30/11/99)
- Topography (12/12/02)

**(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 two conservation areas located within the local area (10km radius).

The Boyanup State Forest is located 4.6km south east of the application area and the Dardanup Conservation Park is located 6.5km north east. The vegetation under application is considered to be in a degraded (Keighery 1994) condition (DEC 2008a) yet it is apart of a larger area of remnant vegetation (approximately 35 hectares) which may act as a stepping stone to nearby conservation areas, within an extensively cleared area.

Due to the size and condition of the proposed, it is considered unlikely that the vegetation under application significantly enhances the environmental values of nearby conservation areas.

**Methodology DEC (2008a)  
Keighery (1994)**

**GIS DataSets**

- Bunbury 50cm Orthomosaic Landgate 2006
- Calm Managed Lands and Waters (1/11/03)

**(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 application area lies within the Leschenault Estuary-Preston River catchment. There is no known risk of salinity occurring in the local area (10km radius). The proposed clearing of 1.1 hectares of vegetation, considered to be in a degraded (Keighery 1994) condition (DEC 2008a), is unlikely to impact the water quality within the aforementioned catchment.

There is an EPP lake situated 25 metres east of the application area, a resource enhanced wetland 10 metres

to the south. Clearing within 50 metres of these water bodies may compromise their environmental values and water quality, through an increase in sedimentation and turbidity. However, given the current condition of the vegetation under application it is unlikely to be serving as a significant buffer to these wetlands

**Methodology** DEC (2008a)  
Keighery (1994)

GIS DataSets:

- Bunbury 50cm Orthomosaic Landgate 2006
- EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrographic catchments, catchments (01/06/07)

**(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**

Within the local area (10km radius) the average annual rainfall is 900mm. The soils are described as sandy acidic yellow mottled soils, some of which contain ironstone gravel (Northcote 1960- 1968). Due to the sandy nature of the soils and low rainfall, flooding is unlikely to be an issue within the application area.

**Methodology** Keighery (1994)  
Northcote (1960-1968)  
GIS DataSets:  
- Soils, statewide  
- Rainfall, Mean Annual

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

**Comments**

The land owners have given permission for the applicant to access their land and undertake the proposed clearing for the purpose of sand extraction (Trim Ref: DOC 59327).

Submissions have been received (Trim Refs: DOC 57819 & DOC 59432) with the following objections raised :-

- 1) Clearing this area will lead to the decline and loss of the remaining vegetation- addressed in principle (e)
- 2) There is potential loss of large ancient habitat trees -addressed in principle (b)
- 3) Approval of this application will set a precedent for other similar applications on the deep infertile sand ridges of the area- not within the scope of the EP Act
- 4) What carbon offsets will be required for the loss of the vegetation - not within the scope of the EP Act
- 5) The intended use of the land is vague - not within the scope of the EP Act

These objections were made for the original application that was for 5.7 ha and the application area was reduced to 1.1 hectares.

The applicant is yet to obtain an extractive industry licence from the Shire of Capel. Two extensions have been granted in order to allow the applicant time to provide a copy of this approval.

**Methodology** Submission (Trim ref:DOC57819)  
Submission (Trim ref: DOC59432)

#### **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:

- may be at variance principle (c) & (f)
- is not at variance to principle (d)
- is not likely to be at variance to the remaining principles

#### **5. References**

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- DEC (2008a) Site Inspection Report for Clearing Permit Application CPS 2538/1, Lot 2 on Plan 48404 & Lot 120 on Plan 82207, Capel. Site inspection undertaken 30/09/2008. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC65796).
- DEC (2008b) Advice to Assessing Officer, Department of Environment and Conservation Trim Ref DOC60298

- 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.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- 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.
- 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.

## 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)