



## 1. Application details

### 1.1. Permit application details

Permit application No.: 765/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Keiran Credaro

### 1.3. Property details

Property: LOT 75 ON DIAGRAM 98087 (Lot No. 75 HAAG YELVERTON 6280)  
Local Government Area: Shire Of Busselton  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6.9		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
Beard Vegetation Complex: Medium woodland, jarrah & Eucalyptus haematoxylon (Whicher Range)	The DEC Site Report for the property found the vegetations condition to be in Degraded condition (Keighery, BJ 1994). The area consisted	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	
Mattiske Vegetation Complex: Sandy deposits on the shelf carrying woodland of jarrah (Eucalyptus marginata subsp. marginata), sheoak (Allocasuarina fraseriana), Xylomelum occidentale and Banksia species.	predominantly of Banksia spp. with Agonis flexuosa also dominant. Other species included Nuytsia floribunda, Xylomelum occidentale and Allocasuarina fraseriana. There were very few understorey species present, most likely due to the constant grazing pressure over the years. It was also obvious the property had previously been logged. Sheep were observed on the property at the time of the inspection.		

## 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 area under application is within the Beard vegetation unit 1181 and the Mattiske vegetation complex Yelverton (YD), both of which have been identified as significant due to the low percentage remaining, and "depleted" status (Department of Natural Resources and Environment 2002).

The condition of this vegetation however is rated as degraded (Keighery, BJ 1994). The Department's site report noted obvious signs of disturbance, such as logging and continued grazing. The property is currently being grazed by sheep. The vegetation was noted to have very few mid and understorey species, most likely due to long standing grazing pressure.

The vegetation proposed for clearing has also tested positive for the disease *Phytophthora cinnamomi* (dieback), and therefore the condition will continue to deteriorate over time.

CALM advised "in it's current degraded condition, the notified area is unlikely to constitute significant habitat for

indigenous fauna".

Methodology CALM Report 2006  
Site Report 2005

**(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**

Advice from the DEC Biodiversity Co-ordination Section was requested and the following comments were provided to the Department:

"Aerial photographs of the area indicate the property is likely to offer some habitat value to local fauna species as part of a substantial area of remnant vegetation that continues in a southerly direction to the northern bank of the Mary Brook, approximately 550m to the south east of Lot 75 Haag Road. The Mary Brook flows in a northerly direction towards Quindalup, through a landscape of fragmented vegetation."

"However, the area that is proposed to be cleared has very little understorey present due to past management practices. It is therefore unlikely to offer significant habitat for the Western Brush Wallaby or Quenda, since these species prefer dense understorey cover. Site photographs provided by the Department of Environment, show a sparse canopy layer, therefore the habitat is unlikely to be significant for the Western Ringtail Possum. Also from the photographs and report provided by DoE, wetlands and heathlands do not appear to occur within the notified area, therefore the Water-rat (Rakali) and Dunsborough Burrowing Crayfish are unlikely to be present."

"Clearing of the notified area is likely to reduce the value of the native vegetation remnant particularly for very mobile fauna species such as the Chuditch, whilst they are moving through a landscape of fragmented vegetation pockets."

"Based on the information that was provided and available, and in its current degraded condition, the notified area is unlikely to constitute significant habitat for indigenous fauna."

The applicant has committed to a revegetation plan on completion of the excavation operation. This will provide a functional link between remnant vegetation found to the north and south of Lot 75. If successful the linkage could provide a valuable corridor for local wildlife and ensure these remnants are not isolated and the genetic diversity of local fauna is preserved.

Given the above information the Department concludes the clearing is not likely to be at variance to this principle.

Methodology CALM Report 2006  
Site Report 2005

**(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**

*Daviesia elongata* subsp. *elongata*, Declared Rare Flora (DRF), occurs 5.1km north north east of the area under application. There are 10 other DRF species in the local area (10km radius). Advice received from CALM found 33 records of DRF species within the local area.

There is one Priority 1 species, *Andersonia ferricola* ms, existing within the local area and it occurs 10km south east from the area under application. It exists within the same Mattiske vegetation type as the proposed clearing.

Four Priority 2 species occur in the local area, however none are found within the same vegetation type as the area under application. The closest, *Boronia capitata* subsp. *gracilis* exists 4.2km south east of the proposed clearing.

There are sixteen Priority 3 species in the local area, several of which have been identified within the same vegetation complexes. The closest is *Johnsonia inconspicua*, which is 2.2km south east of the area under application.

Four Priority 4 species exist within the local area, with *Laxmannia jamesii* being the closest, occurring 3.2km north west from the area under application.

Advice received from CALM stated that there was a possibility of DRF species occurring within the lot under application. CALM recommended a DRF survey be undertaken to ascertain the presence of any species. Since this time the proponent has amended the area to be cleared, which is outside those areas that CALM recommended be surveyed. The new area proposed by the proponent is highly degraded and subject to

ongoing grazing. Due to the condition of the vegetation in the proposed clearing area and the aforementioned grazing occurring, it is unlikely that DRF species would be found in this area.

**Methodology** CALM Report 2006  
GIS Database:  
- Declared Rare and Priority Flora List - CALM 15/7/03

**(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**

CALM has advised that the vegetation proposed to be cleared does not appear to contain a Threatened Ecological Community.

However, CALM also advised that some species identified as occurring within the southern portion (vegetation not under application) are indicative of the Threatened Ecological Community (TEC) Type SCP1a and 1b, Southern Marri Woodland on heavy soils.

The Species and Communities branch have advised that as the proposed clearing is some distance from this area, and the clearing is unlikely to affect groundwater the impact on any possible TEC's would be negligible

**Methodology** CALM Report 2006  
Site Report 2005

**(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 application is located in the Swan Coastal Plain Bioregion in the Shire of Busselton. The extent of native vegetation in these areas is 41.8% and 44.5% respectively (Shepherd et al. 2001). There is approximately 25% of native vegetation remaining in the local area.

The area proposed for clearing has been identified as the Beard Unit: 1181, which has 35% of pre-European vegetation remaining. The vegetation under application has been identified as the Mattiske vegetation complex, Yelverton (Yd) which has 53.3% remaining. The Department of Natural Resources and Environment classes both of these complexes to be 'Depleted'.

With its current use of grazing, the vegetation's condition is unlikely to improve.

The vegetation also returned a positive result to the presence of *Phytophthora cinnamomi*, therefore the condition is likely to deteriorate over time.

On completion of the excavation program the applicant has committed within their development application to a rehabilitation plan which will eventually consist of dieback resistant species.

The rehabilitation plan when completed will result in a larger and more viable remnant existing within a predominantly cleared landscape.

A condition has been imposed to require rehabilitation of the area following the completion of the extraction.

Given the above information the Department concludes the proposal is not likely to be at variance to this principle.

**Methodology** Shepherd et al. 2001  
GIS Database:  
- Mattiske Vegetation - CALM  
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00  
- Pre European Vegetation - DA 01/01  
- Local Government Authorities - DLI 8/07/04

**(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**

A minor perennial watercourse runs through the north eastern corner of Lot 75, however the proposed clearing is approximately 100m from the stream.

Two Conservation Category Geomorphic wetlands exist approximately 360m north west and north east of the area under application.

A Multiple Use Geomorphic wetlands lies in the fenced southern portion of Lot 75, which appears to be in better condition than has been mapped.

There are six EPP lakes in the local area. The closest is 2.5 km from the area under application.

Planning approval issued by the Shire of Busselton requires the applicant to ensure that all stormwater is contained on-site to remove sediments and turbidity. The applicant must ensure the stormwater is diverted through adequate bypass drains / earthen bunds to sedimentation basins. IN addition, the applicant must install silt/nutrient stripping ponds to protect local waterways. These are to be established prior to the operation commencing.

Given the above information the Department concludes the proposal is unlikely to be at variance to this principle.

Methodology Shire of Busselton 2005  
GIS Database:  
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04  
- EPP Areas - DEO 06/95  
- Hydrography Linear - DoE 1/2/04

**(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 Department of Agriculture (DAWA) identified both eutrophication and waterlogging as being possible degradation risks. Under extractive industry land use the risk of nutrient export is likely to be very low and remain low if rehabilitated and planted back to native vegetation.

As stated in the Development Application - Sand Extraction Management Plan, dated 30/06/05, the extraction process is divided into staged cells, and a maximum of only one cell will be operating as a working extraction cell at one time. The plan also states that rehabilitation of each cell will be undertaken immediately upon completion of the extraction. This will ensure a maximum area of 2 hectares is exposed at any given time during the operation.

The Department concludes the proposal is not likely to be at variance to this principle.

Methodology DAWA Report 2006

**(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 Haag Nature Reserve exists approximately 500m north west of the proposed clearing. The Reserve shares the same Mattiske vegetation complex, Yelverton. The reserve is linked to the proposed clearing, through stepping-stones of both roadside vegetation and isolated paddock trees.

CALM provided the following comments:

"The notified area is in close proximity to Haag Nature Reserve, to the north. Removal of the native vegetation will increase the isolation of the reserve but is unlikely to affect its ecological values given that drainage from the site is predominantly to the south".

Given the sparsity and degradation of vegetation to be removed it is unlikely that this vegetation significantly contributes to this Nature Reserve's functionality.

Methodology CALM Report 2006  
GIS Database:  
- CALM Managed Lands and Waters - CALM 1/06/04

**(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 clearing is not within a gazetted public drinking water supply area.

The Shire of Busselton issued planning consent to Mr Credaro on 11th October 2005. A condition of this approval included the requirement to install detention and silt/nutrient stripping ponds, as appropriate, to protect local waterways, prior to the commencement of the excavation operation.

A second condition requires all stormwater to be initially contained on-site to remove sediments and turbidity. They also require that overland stormwater flows outside of the project excavation area be diverted via

adequate bypass drains / earthen bunds around disturbed surfaces and stockpiled matter. The condition specifies the sedimentation basins be designed and maintained in accordance with the Water and Rivers Commission's Minesite Stormwater Management.

The Department received a submission raising concerns over the potential runoff the development may cause by potentially entering the two creeks, "Anniebrook" and "Marybrook", and the geomorphic wetlands. The Department considers that the proposed protection methods identified above will address the potential risk to these identified waterways.

Given the applicant has committed to the above preventative steps to protect both surface and groundwater the Department concludes the proposal is not likely to be at variance to this principle.

**Methodology** Framework Environmental Management Plan 2005  
GIS Database:  
- Hydrography Linear - DoE 1/2/04

**(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**  
Due to the scale of the proposed clearing, flooding impacts are unlikely to occur.

**Methodology** GIS Database:  
- Topographic Contours Statewide - DOLA 12/09/02

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

**Comments**  
The property is zoned 'General Farming' under the Town Planning Scheme Zones, however planning approval was given by the Shire of Busselton on 11 October 2005.

A submission was received raising concerns on the existence of DRF within the vegetation proposed for clearing. The proponent has amended the area to be cleared to avoid the risk of impacting DRF species.

A second submission was received raising concerns over the potential risk of runoff entering nearby watercourses and wetlands. These concerns have been addressed in Principle I.

**Methodology** GIS Database:  
- Town Planning Scheme Zones MFP 8/98

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Extractive Industry	Mechanical Removal	6.9	The proponent has amended the area under application to a smaller and largely degraded section of the lot. Due to the current vegetation condition and grazing pressure, the proposed clearing is not thought to be at variance to any of the ten clearing principles. It is recommended that the permit be granted with conditions relating to dieback management and rehabilitation.

**5. References**

Clearing Assessment Units biodiversity Advice for land clearing application. Advice to Director General, Department of Environment and Conservation, Western Australia. DEC TRIM Ref CRN219072

DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM Ref IN25994

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

MacroEnvironmental, 2005, Framework Environmental Management Plan, Technical Report

Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

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.

Shire of Busselton, 2005, Planning Consent for Extractive Industry

## 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)