



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1494/1  
 Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Munro's Plantation

### 1.3. Property details

Property: LOT 136 ON PLAN 202366 (House No. 490 SOUTH RIVER SOUTH PLANTATIONS 6701)  
 LOT 169 ON PLAN 204547 (House No. 490 SOUTH RIVER SOUTH PLANTATIONS 6701)  
 Local Government Area: Shire Of Carnarvon  
 Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.9		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 & bluebush. Shepherd et al. 2001	The area under application is a 3.9 ha block that occurs in the horticultural district of Carnarvon and would be cleared to expand the existing enterprise. The area has historically been cleared, ploughed to control weeds, grazed by goats and in one small area a grapefruit orchard was established. The practice of ploughing and keeping goats ceased some time ago and the grapefruit trees have been removed for about 5 years. The area has since been disused and some vegetation has regenerated. The vegetation today consists of small shrubs, a few young eucalyptus trees and a high incidence of the introduced species, buffel grass ( <i>Cenchrus ciliaris</i> ). Evidence of the historical disturbances remain with old fences and some rubbish occurring within the area. The condition of the vegetation is considered to be good.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation was determined during the site visit conducted on the 2nd of November 2006.  Site visit DEC officer, 2006.

## 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 has historically been cleared and subject to a number of disturbances including historical clearing, ploughing to control weeds and grazing by goats. At one time a small orchard was established in one section and this activity ceased about 5 years ago. Some evidence of these disturbances

remains and the condition of the vegetation varies between degraded and good, however has been rated as good (Site visit DEC officer, 2006). The area under application occurs within a well vegetated landscape, as the Carnarvon Interim Biogeographic Region remains mostly uncleared. The level of disturbance at the site, introduction of exotic species and generally low native species density suggests that the original biodiversity has been compromised. The area under application is therefore unlikely to comprise of a high level of biological diversity.

**Methodology** GIS Databases:  
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00.  
 Keighery (1994).  
 Site visit DEC officer, 2006.

**(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**  
 The area under application has historically been cleared and subject to a number of disturbances including historical clearing, ploughing to control weeds and grazing by goats. At one time a small orchard was established in one section and this activity ceased about 5 years ago. Some evidence of these disturbances remains and the condition of the vegetation varies between degraded and good, however has been rated as good (Site visit DEC officer, 2006). In comparison there is vast landscape of vegetation nearby that is pristine, having remained undisturbed and undeveloped. The level of disturbance at the site, introduction of exotic species and generally low native species density suggests that the original habitat value has been compromised. The area under application is therefore unlikely to provide a significant habitat for indigenous fauna.

**Methodology** GIS Databases:  
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00.  
 Keighery (1994).  
 Site visit DEC officer, 2006.

**(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**  
 The data available indicates that there are no records of Declared Rare or Priority flora occurring in the local area; that is within a 10km radius. The closest occurrence of significant flora is a Priority 2 species that is located some 80km from the area under application. Therefore it is unlikely that the proposed clearing will affect significant flora.

**Methodology** GIS Databases:  
 - Declared Rare and Priority Flora list - CALM 01/07/05  
 - Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05

**(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 records of Threatened Ecological Communities occurring in the local or wider area. Indeed the closest occurrence is at Hamelin Pool which is over 100km from the area under application. Therefore this proposal is not at variance to this Principle.

**Methodology** GIS Databases:  
 - Threatened Ecological Communities - CALM 12/04/05

**(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 at variance to this Principle**  
 The vegetation under application is representative of Beard Vegetation Association 308 (Hopkins et al. 2001) of which there is 99.4% of the pre-European extent remaining (Shepherd et al. 2001). In addition the application falls within the Carnarvon IBRA Bioregion which has 99.8% of the pre-European extent remaining (Shepherd et al. 2001). Beard Vegetation Association 308 and the Carnarvon IBRA Bioregion are therefore both of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002). This proposal is therefore not at variance with this Principle.

	Pre-European Reserves/CALM-area (ha)	Current extent (ha)	Remaining %*	Conservation status**	managed land,
%					

IBRA Bioregion - Carnarvon

	8,382,974	8,369,554	99.8	Least concern	11.3
Shire - Carnarvon	Not available	Not available	Not available	Not available	Not available
Beard veg type - 308	447,098	444,535	99.4	Least concern	0.7

\* (Shepherd et al. 2001)

\*\* (Department of Natural Resources and Environment 2002)

**Methodology** GIS Databases:

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre-European Vegetation - DA 01/01
- Local Government Authorities - DLI 08/07/04
- EPA Position Paper No 2 Agriculture Region - DEP 12/00

Shepherd et al, 2001.  
Department of Natural Resources and Environment, 2002

**(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**

No watercourses or wetlands are located within the area under application. The Gascoyne River is located approximately 800m northwest and the McNeill Claypan System is located approximately 1 km south of the notified area. The proposal includes clearing of 3.9ha which has historically been cleared and subject to a number of disturbances including historical clearing, ploughing to control weeds and grazing by goats (Site visit DEC officer, 2006). Due to the previous clearing and the distance to any watercourse or wetland it is unlikely that the vegetation within the area under application is growing in association with the two identified watercourses. This proposal is therefore unlikely to be at variance with this Principle.

**Methodology** Site visit DEC officer (2006)

GIS Databases:

- Hydrography, linear - DoE 01/02/04
- Hydrographic Catchments - Catchments - DoE 23/03/05
- ANCA Wetlands - CALM 08/01

**(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 has historically been cleared and subject to a number of disturbances including historical clearing, ploughing to control weeds and grazing by goats. At one time a small orchard was established in one section and this activity ceased about 5 years ago. Some evidence of these disturbances remains and the condition of the vegetation varies between degraded and good, however has been rated as good (Site visit DEC officer, 2006). This proposal is expected to extend the current horticultural development on the property.

DAFWA (2006) advise that 'the assessment indicated that the land is not highly suited to horticulture production and identified the potential for land degradation in the form of salinity, waterlogging and soil erosion to occur if the proposed development is not carefully managed. The hard setting red duplex De4 land system soil type is recognised as having poor internal drainage characteristics, is prone to salinity and soil erosion if left bare for extended periods. Therefore, I conclude that the proposed clearing of 3.9 hectares within the above Lot may be at variance with principle (g) for salinity, waterlogging and soil erosion.'

Therefore the proposed clearing may be at variance to this principle.

**Methodology** Site visit DEC officer (2006)

DAFWA (2006)

GIS Databases:

- Rainfall, Mean Annual - BOM 30/09/01
- Salinity Risk LM 25m - DOLA 00
- Acid Sulphate Soil risk map, SCP DOE 04/11/04
- 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**

The Chinaman's Pool Nature Reserve is located approximately 8 km West and One Tree Point Nature Reserve is located approximately 10 km from the area under application. In addition the Wooramel Seagrass Bank, which is registered as National Estate is located approximately 10 km from the notified area. The McNeill Claypan System, registered as an ANCA (Australian Nature Conservation Agency) Welland and an

Environmentally Sensitive Area is located 1 km south from the proposal.

The area under application is located within the Camarvon horticulture district and is surrounded by horticulture developments. The area under application consists of approximately 3.9ha which has historically been cleared and subject to a number of disturbances including historical clearing, ploughing to control weeds and grazing by goats. At one time a small orchard was established in one section and this activity ceased about 5 years ago. Some evidence of these disturbances remains and the condition of the vegetation varies between degraded and good, however has been rated as good (Site visit DEC officer, 2006). The proposed clearing is not likely to impact on the environmental values of the identified conservation reserves due to the distance and the small area under application. This proposal is therefore not likely to be at variance with this Principle.

**Methodology** Site visit DEC officer (2006)  
GIS Databases:  
- ANCA Wetlands - CALM 08/01  
- CALM Regional Parks - CALM 12/04/02  
- CALM Managed Lands & Waters - CALM 01/07/05  
- Proposed National Parks FMP-CALM 19/03/03  
- Register of National Estate - EA 28/01/03  
- Clearing Regulations - Environmentally Sensitive Areas - DOE 30/5/05

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

The area under application has historically been cleared and subject to a number of disturbances including historical clearing, ploughing to control weeds and grazing by goats. At one time a small orchard was established in one section and this activity ceased about 5 years ago. Some evidence of these disturbances remains and the condition of the vegetation varies between degraded and good, however has been rated as good (Site visit DEC officer, 2006). This proposal is expected to extend the current horticultural development on the property.

The area under application is located within a low rainfall zone of 300 mm per annum. The Gascoyne River is located approximately 800 m northwest of the notified area. DAFWA (2006) advise that 'the assessment indicated that the land is not highly suited to horticulture production and identified the potential for land degradation in the form of salinity, waterlogging and soil erosion to occur if the proposed development is not carefully managed. The hard setting red duplex De4 land system soil type is recognised as having poor internal drainage characteristics, is prone to salinity and soil erosion if left bare for extended periods.'

Therefore this proposal may be at variance to this principle.

**Methodology** DAFWA (2006)  
Site visit DEC officer (2006)  
GIS Databases:  
- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05  
- Hydrographic Catchments - Catchments - DOE 23/03/05  
- Hydrography, linear - DoE 01/02/04  
- Rainfall, Mean Annual - BOM 30/09/01

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

The area under application is located within a low rainfall zone of 300 mm per annum. The Gascoyne River is located approximately 800 m northwest of the notified area. DAFWA (2006) advise that 'The entire block is flood affected at times of major river flooding. Commencing in 2006, some relief floodway development and changes to prevailing roadway levels area planned, that are intended to lessen the future adverse impact of floods on the plantation area.'

DAFWA (2006) further advise that 'the assessment indicated that the land is not highly suited to horticulture production and identified the potential for land degradation in the form of salinity, waterlogging and soil erosion to occur if the proposed development is not carefully managed. The hard setting red duplex De4 land system soil type is recognised as having poor internal drainage characteristics, is prone to salinity and soil erosion if left bare for extended periods.'

Therefore this proposal may be at variance with this Principle.

**Methodology** DAFWA (2006)  
Site visit DEC officer (2006)  
GIS Databases:  
- Rainfall, Mean Annual - BOM 30/09/01

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

**Comments**

The Shire of Carnarvon advised that no objections are raised to the clearing of land as proposed if the purpose is to extend only, the existing adjoining cultivated areas into the intended cleared areas. If the clearing is required to develop new land uses, or new buildings, or to implement 'downstream processing' of any adjoining horticultural use then approval for that is required pursuant to the Shire's Town Planning Scheme (TPS) No.10. As the area under application is an extension of the current horticultural development on the property there are no approvals required.

The Department of Water Advised that there is a current water licence in place for the property and no amendment is required.

There is no further requirement for a Works Approval or EP Act Licence for the area under application.

An Environmental Impact Assessment (EIA) was conducted over the area under application as part of the Shire of Carnarvon Town Planning Scheme which identified proposed areas for infrastructure and areas of conservation within the Shire of Carnarvon. The Scheme was formally assessed for environmental review and managed through scheme maps, provisions and local planning strategy. This EIA does not affect this application as the property is zoned accordingly for horticultural development (EPA reference CRN145179).

There is one Native Title Claim over the area under application. As the property under application is freehold land Native Title has been extinguished.

There are two registered Aboriginal Sites of Significance over the area under application. The proponent will be advised in the covering letter.

DAFWA Land Degradation Assessment Report (2006) advised that 'The Carnarvon Office of the Department of Agriculture and Food believe that the proposal represents a viable opportunity to expand the area of intensively cropped horticultural land within the Carnarvon Horticultural area.'

**Methodology**

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Horticulture	Mechanical Removal	3.9	<p>The assessable criteria have been addressed and the proposal may be at variance to Principles (g, i and j).</p> <p>Principle (g, i and j): DAFWA advised that 'the assessment identified the potential for land degradation in the form of salinity, waterlogging and soil erosion to occur if the proposed development is not carefully managed.'</p> <p>This proposal is expected to extend the current horticultural development on the property, which is zoned for 'Intensive Horticulture'. DAFWA Land Degradation Assessment Report (2006) advised that 'The Carnarvon Office of the Department of Agriculture and Food believe that the proposal represents a viable opportunity to expand the area of intensively cropped horticultural land within the Carnarvon Horticultural area.'</p> <p>The assessing officer therefore recommends that the permit be granted with advice in the covering letter for the applicant to seek further advice from the Department of Agriculture and Food on Best Management Practices.</p>

**5. References**

DAFWA (2006) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM Ref DOC10333.

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.

Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.

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

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.

Site Visit Report (2006) Department of Environment and Conservation (DEC), Western Australia. TRIM ref DOC12269.

## 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)