



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1730/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: A, G & PA Angi

### 1.3. Property details

Property: LOT 4694 ON PLAN 207022 ( YARLOOP 6218)

Local Government Area: Shire Of Harvey

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
13.98		Mechanical Removal	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
Heddl vegetation Bassendean complex central and/ south Vegetation ranges from woodland of <i>E. marginata</i> - <i>C. fraseriana</i> - <i>Banksia</i> spp. to low woodland of <i>Melaleuca</i> species, and sedgeland on the moister sites. This area includes the transition of <i>E.</i> <i>marginata</i> to <i>E. tottiana</i> in the vicinity of Perth.	The proposal is for the clearing of 13.98 hectares of native vegetation for grazing and pasture. The vegetation away from the heavily wooded swamp areas is in degraded condition. These areas generally consists small clumps and individual trees except for the areas of closely grouped grass trees. Livestock have access to all vegetation areas on the property.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition was deemed to be degraded (Keighery, 1994) From DAFWA site visit (2007) and aerial photography.
Beard Vegetation Associations: 1000 - Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree ( <i>Melaleuca</i> spp.)			

## 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 proposal is for clearing of 13.98 hectares of native vegetation for the purpose of grazing and pasture.

The application area is in a degraded and fragmented state (Keighery, 1994, DAFWA 2007). The vegetation consists mainly of grass trees and groups or clumps of trees plus individual trees spread over the proposed area with no understorey (Keighery 1994). Livestock have access to all vegetated areas on the property.

The clearing is unlikely to comprise a high level of biological diversity due to the lack of flora species and habitat for fauna. Due to the condition and area of the vegetation the clearing is unlikely to adversely impact on the biological diversity values of the local areas.

**Methodology** Keighery, 1994  
DAFWA advice 2007

- GIS databases:  
 - Swan Coastal Plain South - DLI 05  
 - Bunbury - DLI04

**(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 proposal is for the clearing of approximately 13.98 hectares of native vegetation for pasture and grazing. The vegetation consists of groups or clumps of trees plus individual trees spread over the proposed area and areas of closely grouped grass trees, as such, are likely to be degraded (Keighery, 1994). Within the local area (10km radius from the proposed area for clearing) there are four known records of Declared Threatened Fauna and six known records of Priority fauna. The Declared Threatened Fauna include one bird and three mammal species, while the priority species included one bird and two mammal species.

Given the proposal is to clear 13.98 hectares of degraded native vegetation, predominately consisting of grass trees, it is unlikely the area would be significant habitat for fauna indigenous to WA.

- Methodology**      Kiegher 1994  
 GIS databases:  
 - Swan Coastal Plain South - DLI 05  
 - Bunbury - DLI04  
 - SAC Biodatasets, Fauna 06/06/07

**(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**  
 A desktop study found 4 known records of the Declared Rare Flora (DRF) for three species and 14 records of 12 Priority flora species occurring in the local areas (10km radius).

Given that the area to be cleared approximately 13.98 hectares of small clumps of native vegetation, individual trees and grass trees and that the application site appears to be degraded (Keighery, 1994) with little or no vegetation, it is not likely that the vegetation supports any rare flora.

- Methodology**      Keighery, 1994  
 GIS databases:  
 - Swan Coastal Plain South - DLI 05  
 - Bunbury - DLI04  
 -SAC Bio datasets, DEFL 06/06/07

**(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**  
 Records indicate there are five records threatened ecological communities within a ten kilometre radius of the areas under application, the community is shrublands on calcareous silts of the Swan Coastal Plain.

Given that the TEC occurs in different vegetation and soil type than that found at the area under proposal it is unlikely to be suitable habitat or be necessary for the maintenance of the threatened ecological community.

- Methodology**      GIS databases:  
 - Swan Coastal Plain South - DLI 05  
 - Bunbury - DLI04  
 - SAC bio datasets - TEC 06/06/07  
 - Heddle Vegetation Complexes - DEP 21/06/95  
 - Soils, Statewide - DA 11/99  
 - Pre-European Vegetation - DA 01/01

**(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**

Pre-European	Current extent	Remaining	Conservation	% In
	(ha)*	(ha)*	**status reserves/CALM (%)* managed land	
IBRA Bioregions				
- Swan Coastal Plain	1,501,456.550	571,758.664	38.1 Depleted	10.4

Shire of Harvey	168,294	101,085	60.1	Least Concern	
Vegetation type: Beard: Unit 1000	94,176.683	22,514.599	23.9	Vulnerable	2.6
Hedde: Bassendean Complex-Central	87,477	23,624	27	Vulnerable	0.7

\* (Shepherd et al. 2001)

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

\*\*\* Within the Intensive Landuse Zone

The area under application is located in the Swan Coastal Plain Bioregion. The extent of pre-European vegetation within this area is 38.1% (Shepherd et al., 2001).

The proposal site falls within the Shire of Harvey, of which there is 60% remaining of pre-European vegetation (Shepherd et al., 2001).

The Beard Vegetation Associations of the areas under application are 23.9% of the remaining pre-European vegetation (Hopkins et al., 2001) which has a conservation status of vulnerable (10-30% of pre-European extent remains). The Hedde Complex is Bassendean Complex-Central And\South of which 27% is remaining of pre-European vegetation (Hedde et al 1980) which has a conservation status of vulnerable (Department of Natural Resources and Environment, 2002).

This area is within the Greater Bunbury Region Scheme however it doesn't fall within a constrained area thus the objective is to retain at least 30% of the pre-clearing extent. National Objectives Targets for Biodiversity Conservation, also includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment, 2002; EPA 2000)

The area under application is in a degraded condition that is unlikely to hold a high level of biodiversity values and is therefore not considered likely to be a significant remnant of vegetation. The proposed clearing is therefore not likely to be at variance to this clearing principle.

**Methodology** Shepherd et al 2006  
 Shepherd et al 2001  
 Department of Natural Resources and Environment 2002  
 GIS databases:  
 - Swan Coastal Plain South - DLI 05  
 - Bunbury - DLI04  
 - Hedde Vegetation Complexes, DEP 21/06/95  
 - Pre-European Vegetation - DA 01/01  
 -Interim Biogeographic Regionalisation of Australia - EA 18/10/00

**(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 at variance to this Principle**  
 The areas under application are an environment associated with wetlands the majority of the areas under application within 50m of Resource Enhancement category wetlands.

DEC, Species and Communities Branch, Wetland Program advise that priority wetlands and their buffers should be protected from clearing, whether it occurs by mechanical means or by grazing. In consideration of the current land use of the priority wetlands and their buffers (grazing) the exclusion, through fencing, of all clearing in the priority wetlands is the highest priority, as direct impacts to the wetlands are considered to pose a greater threat in the long term than the proposed mechanical clearing of degraded vegetation in the wetland buffers.

A fencing condition has been imposed to prevent livestock access to resource enhancement wetlands.

**Methodology** Wetlands Program Advice TRIM Ref DOC29147 and DOC29148  
 GIS database:  
 - Hydrography, linear - DOE 01/02/04  
 - EPP, Areas - DEP 06/95  
 - EPP, Lakes - DEP 28/07/03  
 - EPP, Wetlands - DEP 21/07/04  
 - 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 is not likely to be at variance to this Principle**  
The area proposed to be cleared is within a moderate to high risk area for Acid Sulphate Soils. However, DAFWA Land Degradation Assessment Report (2007) raises no potential land degradation issues for this proposal. The risk of salinity, eutrophication, wind erosion and water erosion causing land degradation are considered to be low. Therefore the area under application is considered to be not likely to be at variance to this principle.

**Methodology**    GIS Database:  
- Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC  
- Groundwater Salinity, Statewide - DOW  
- Hydrogeology, Statewide - DOW  
- Soils, Statewide - DA 11/99  
- Topography Contours, Statewide - DOLA 12/09/02  
- Mean Annual Rainfall BOM

**(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 areas proposed to be cleared do not lie within or adjacent to areas set aside for conservation. Given that the application sites are degraded and generally devoid of any vegetation, the proposal sites are highly unlikely to function as ecological linkages to nearby conservation areas.

**Methodology**    GIS Database:  
- CALM Managed Lands and Waters - CALM 1/06/04  
- System 6 Conservation Reserves - DEP 06/95  
- Register of National Estates

**(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**  
DAFWA Advice (2007) notes that grasstrees are the only vegetation present within the area under application and considers the risk of eutrophication is unlikely to increase.

Additionally the proposed clearing is within the Harvey Estuary-Harvey River Hydrographic Catchment area Average rainfall is 1000mm/year and while Evapotranspiration is 800mm/year risk of the removal of native vegetation causing water erosion affecting surface water quality is unlikely due to soil types present (DAFWA 2007).

**Methodology**    DAFWA advice (2007)  
GIS Database:  
- Public Drinking Water Source Areas (PDWSAs) - DOW  
- Evapotranspiration, Areal Actual - BOM 30/09/01  
- Hydrographic Catchments - Subcatchments - DOW  
- 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 is not likely to be at variance to this Principle**  
Due to the scale and nature of the proposed clearing, it is unlikely to cause or exacerbate flooding within the local area.

**Methodology**    DAFWA advice (2007)

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

**Comments**  
The proposed clearing is within the Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992 (Peel Harvey EPP). The basis for protection of the Estuary is nutrient enrichment of the Estuary has been caused by the clearing of native vegetation in the policy area and by land uses that result in nutrients, especially phosphorus, leaching into waterways in the policy area and then flowing into the Estuary. The environmental quality objectives to be achieved and maintained through the Peel Harvey EPP include local authorities and the State ensuring the decision and actions are compatible with the achievement and maintenance of the

environmental quality objects of the policy.

DAFWA Advice (2007) notes that grass trees are the only vegetation present within the area under application and considers the risk of eutrophication is unlikely to increase.

Submission received from Local Government Agency advising that council objects to proposed clearing on basis:

1. Grass trees are significant and contribute to biodiversity of area, biodiversity is addressed under principle (a).
2. Purpose is for grazing and pasture therefore shire concerned with how grass trees will be disposed of given their value for landscaping, the disposal of the vegetation can not be considered under the clearing principles.
3. Considered the existing pasture areas are sufficient for grazing purposes, the purpose of clearing can not be considered within clearing principles.

There is one Native Title claim over the area under application, as the property is privately owned the granting of the clearing permit is a secondary approval and does not constitute a future act under the Native Title Act 1993.

It has been noted that this proposal covers an area in which there exists two registered Indigenous Heritage Sites. It is the responsibility of the proponent to ensure that no Aboriginal Sites of Significance are damaged through the clearing process

#### Methodology

GIS database:

- Town Planning Scheme Zones - MFP 8/98
- Native Title Claims - DLI 7/11/05
- EPP, Areas - DEP 06/95

## 4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Grazing & Pasture	Mechanical Removal	13.98	The assessable criteria have been addressed and the proposal is at variance to Principle (f) and not likely to be at variance to the remaining Principles.

## 5. References

- DAFWA (2007) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref DEC22752
- 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.
- Shepherd, D.P. (2006). 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.
- Wetlands Program Advice TRIM Ref DOC29147 and DOC29148

## 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)

