



## 1. Application details

### 1.1. Permit application details

Permit application No.: 996/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Shire of Esperance

### 1.3. Property details

Property: ESPERANCE LOCATION 1356 (Lot No. 1356 CONNOLLY WEST BEACH 6450)

Local Government Area: Shire Of Esperance

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.4		Mechanical Removal	Recreation

## 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 129: Bare areas; drift sand	The area under application is coastal scrub with acacia on sand dunes (DEC Site Visit AD261) and as such is similar to Beard	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The Esperance Wildflower Society (TRIM ref IN25050-02) reported that the vegetation is dense and almost impenetrable in places with minimal weed species present. Large infestations of weeds were identified on and adjacent to an earlier cleared track and around the limestone pit near the existing Rifle Range north east of the proposed area.
Beard Vegetation Association 42: (vegetation mapping indicates this association is adjacent to the area under application) - Shrublands; mallee and acacia scrub on south coastal dunes.	Association 42. A flora survey conducted by the Esperance Wildflower Society described the vegetation as typical tall to medium coastal scrub in near coastal sandhills with limestone at varying depths (TRIM ref IN25050-02).		The DEC Site Visit identified the same pattern of weed invasion on and near previously disturbed areas. As such the condition of the vegetation is considered to be good near the disturbed areas and excellent throughout the remainder of the area.

## 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 contains a moderate level of biodiversity based on the flora survey conducted by The Esperance Wildflower Society (2005). DEC Site Visit (2006) indicates the vegetation to be in very good condition (Keighery, 1994).

Given the condition of the vegetation and the moderate level of biodiversity recognised by the Esperance Wildflower Society the proposed clearing is not likely to contain a high level of biological diversity.

**Methodology** DEC Site Visit, 2006  
The Esperance Wildflower Society Flora Survey, Nov 2005  
Keighery, 1994

### (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 is within Crown Reserve 15042 and surrounded by vegetation in the same to better condition.

The clearing may reduce connectivity between the North and South sides of the area cleared and is likely to provide habitat to fauna, however given the large area of surrounding vegetation the area proposed to be

cleared is not considered to be significant habitat and is unlikely to significantly impact fauna populations in the local area.

**Methodology** DEC Site Visit, 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 Esperance Wildflower Society Flora Report (2005) stated that there was no sightings of Declared Rare or Priority Flora species within the area under application. Additionally, no Declared Rare Flora is listed as occurring within a 10km radius of the area under application.

Given the above information, this proposal is not likely to be at variance to this Principle.

**Methodology** The Esperance Wildflower Society Flora Report, Nov 2005  
DEC Site Visit, 2006  
GIS Database:  
-Declared Rare and Priority Flora List - CALM 01/07/05

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

The closest TEC is located 4.5km north west of the site. This TEC is within Pink Lake Nature Reserve and as such is located within an environment that is not present on site (DEC Site Visit, 2006). Thus, the vegetation covered by this application does not form a whole or part of, and is not necessary for the maintenance of a TEC.

Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** DEC Site Visit, 2006  
GIS Database:  
-Threatened Ecological Communities - CALM 12/4/05

**(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 in very good condition (Keighrey, 1994) and is a component of Beard Vegetation Association 129 and 42 (Hopkins et al. 2001) of which there is 54.1% and 96.5% (Shepherd et al. 2001) of pre-European extent remaining respectively and therefore are both of a 'Least Concern' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation under application is also within the Esperance Plains Bioregion and Esperance Shire of which there is 45.4% and 27.4% of pre-European extent remaining respectively.

To help mitigate the loss of native vegetation, if clearing is permitted a condition will be imposed to revegetate an area of 0.8ha on the south side of the rifle range.

Given the area under application is surrounded by remnant vegetation (within Crown Reserve 15042) and remaining vegetation within the Shire and Bioregion is high, the proposed clearing is not considered to be a significant remnant of vegetation in an area that has been extensively cleared.

**Methodology** Hopkins et al. (2001).  
Shepherd et al. (2001).  
Department of Natural Resources and Environment (2002).  
GIS Database:  
-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 not likely to be at variance to this Principle**

No watercourses or wetlands are present within the area proposed to be cleared (DEC Site Visit, 2006).

Within a 10km radius of the proposed area, there are a number of significant wetlands, these include:

- Lake Warden System - classified as a RAMSAR, ANCA and South Coast Significant Wetland
- Pink Lake - classified as an ANCA and South Coast Significant Wetland.

Due to the topography, distance and lack of vegetation and waterway connectivity, the proposal is unlikely to impact these wetlands. Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** DEC Site Visit (TRIM ref AD261)  
 GIS Databases:  
 -Hydrography, linear - DoE 01/02/04  
 -South Coast Significant Wetlands - DoE 04/08/03  
 -ANCA, Wetlands - CALM 08/01  
 -RAMSAR, Wetlands - CALM 14/02/03

**(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 covered by this application has steep sand dunes in excess of 10m in elevation (DEC Site Visit). The proposed clearing extends to within 45m of a large blown-out south west of the existing rifle range.

DAFWA advice indicates that the proposed clearing appears to be in line with the prevailing wind. It is unlikely that the proposed development will affect the behaviour of the active dune system. Further stabilisation of banks and sand spread should be considered with the timing of clearing and seasonal rains.

Given the above the proposed clearing may cause wind erosion therefore if a permit is granted a condition will be imposed to ensure ground cover is maintained on completion of works.

Additionally the applicant has provided a detailed management plan to address the issues of wind erosion.

**Methodology** Environmental Notes, Landform Research, Sept 2006  
 DEC Site Visit, 2006.  
 GIS Database:  
 -Topographic Contours, Statewide - DOLA 12/09/02

**(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 a number of conservation reserves within a 10km radius of the proposed area -

- Recherche Archipelago Nature Reserve located 5.1km south
- Lake Warden Nature Reserve located 4.9km north
- Unnamed Nature Reserve located 5.9km north west

Given the distance from the nature reserves identified it is unlikely the proposed clearing will impact on the nearby conservation areas. Therefore the proposal is unlikely to be at variance to this Principle.

**Methodology** GIS Database:  
 - CALM Managed Lands and Water - CALM 01/07/05  
 - Esperance Townsite 20cm Orthomosaic - DLI 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 Department of Water (DoW) advise that the proposed area is located within a Public Drinking Water Source Area (PDWSA) of Priority 1 classification. This area is managed by DoW using a principle of risk avoidance to ensure there is no degradation to the water source; consequently, land use activities are restricted. According to the land use compatibility table, used by DoW to assess land use in water catchments, club premises and rifle ranges are an incompatible land use in a Drinking Water Source Area.

Although the Rifle Range had already been operating prior to the classification of the PDWSA, and there is a right for the existing land use to continue with the adoption of best management practises the DoW do not support the expansion of the rifle range.

Further advice from DoW indicated that '...Although the rifle range is a non-conforming land use in the Priority 1 area of the Public Drinking Water Source Area, its ongoing use is permitted provided there is no intensification of activities that could lead to an increased risk of contamination to the water source. DoW therefore has no objection to the clearing of vegetation as proposed in the Environmental Notes that state there will be no

significant change in the use and number of people accessing the facility and that there will be no change in the waste water loading or constructed facilities..'

Given the above information, the proposal is not likely to be at variance to this Principle.

**Methodology** Dept. of Water Submission (A1918)  
Dept. of Water Submission (DOC8844)  
Environmental Notes - Landform Research (Sept 2006).  
GIS Database:  
-Public Drinking Water Source Areas (PDWSAs) - DOE 09/08/05

**(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**  
The area under application contains stabilised calcareous sands overlying and older limestone base (DEC Site Visit). Calcareous dunes are not normally subject to water erosion because of the high permeability and reduced slopes of the soils. This type of soil can be non wetting and small amounts of loose sand may move during storm events (Landform Research).

Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** Environmental Notes - Landform Research (Sept 2006).  
DEC Site Visit (TRIM ref AD216)  
GIS Database:  
-Esperance 1.4m Orthomosaic - DOLA 02

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

**Comments**  
No submissions received.  
  
The proposed clearing is within Reserve 15042 and is vested with the Western Australian Rifle Association Inc.  
  
The area under application lies within the agricultural zone of EPA Position Statement No. 2. The EPA do not support any further reduction in native vegetation through clearing for agriculture and support active management by landholders to maintain environmental values of remaining vegetation.

**Methodology**

**4. Assessor's comments**

Purpose	Method Applied	area (ha)/ trees	Comment
Recreation	Mechanical Removal	1.4	Assessment against clearing principles has identified principle (g) may be at variance, principle (e) not to be at variance and the remaining principles not likely to be at variance.  Maintenance of ground cover, revegetation and weed management conditions imposed to mitigate wind erosion and loss of vegetation.

**5. References**

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.  
DEC Site Visit (TRIM ref AD261).  
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.  
Dept. of Water Submission (DOC8844).  
Environmental Notes - Landform Research (Sept 2006).  
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.  
Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMSscience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.  
JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.  
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, 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
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)

