



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1667/1  
 Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: The Unit Committee -

### 1.3. Property details

Property: LOT 2 ON PLAN 23101 ( VITTORIA 6230)  
 Local Government Area: City Of Bunbury  
 Colloquial name: Turkey Point

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.3		Mechanical Removal	Building or Structure

## 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 3: Medium forest; jarrah - marri Hedde Quindalup Complex: Coastal dune complex - low closed forest and closed scrub.	The Unit Committee proposes to clear a total of 0.3hectares for the construction of a Naval Cadet facility within the City of Bunbury. The application area is bounded to the south-west by land owned by the Bunbury Port Authority, and to the north by Crown Reserve set aside for recreation and vested with the City of Bunbury. Aerial photos suggest that the area to be cleared is in Degraded Condition (Keighery, 1994) with limited scope for regeneration without intensive management. The application area forms part of a discreet area of native vegetation on the low dunal system within the Leschenault Peninsula region known as Turkey Point, and is dislocated from other areas of native vegetation by the Leschenault Estuary and large cleared areas. These cleared areas appear to be the result of industry and development associated with the Bunbury Port Authority or naval activities.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition was deemed to be in 'Degraded' condition from aerial photos (Bunbury 50cm Orthomosaic - DLI 04).
	Without intensive management effort, the application area is likely to become further degraded due to edge effects and surrounding activities.		

### 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 for the construction of a Naval Cadet Facility on Lot 2 Leschenault Drive within the City of Bunbury. Aerial photos suggest that the 0.3ha proposal site is of degraded condition (Keighery, 1994) with limited scope for regeneration without intensive management. The application area forms part of a discreet area of native vegetation on the low dunal system within the Leschenault Peninsula region known as Turkey Point. The local surrounding area appears to have undergone previous clearing possibly associated with the Bunbury Port Authority and naval activity. The area is within 1km of a conservation reserve, however this is separated from the proposed clearing by the Leschenault Estuary.

Given that the vegetation under application is relatively isolated, and degraded with obvious signs of disturbance and limited scope for regeneration, the area proposed to be cleared is unlikely to be representative of an area of outstanding biodiversity in the Bioregion or local area.

**Methodology**      Keighery (1994)  
GIS Database:  
- Bunbury 50cm Orthomosaic - DLI 04  
- CALM Managed Lands and Waters - CALM 1/07/05  
- System 6 Conservation Reserves - DEP 06/95

#### (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 Unit Committee proposes to clear a total of 0.3hectares for the construction of a Naval Cadet facility within the City of Bunbury. Aerial photos suggest that the area to be cleared is in degraded condition (Keighery, 1994) with limited scope for regeneration without intensive management

The application area forms part of a discreet area of native vegetation on the low dunal system within the Leschenault Peninsula region known as Turkey Point. The area is dislocated from other areas of native vegetation by the Leschenault Estuary and by large cleared areas that appear to be the result of developmental activities possibly associated with the Bunbury Port Authority. Consequently the vicinity of the proposed clearing is not vegetatively linked to any conservation areas.

Given the degraded and isolated nature of the vegetation under application, it is highly unlikely that vegetation within the proposed clearing provides significant habitat for indigenous fauna.

**Methodology**      Keighery (1994)  
GIS Database:  
- Bunbury 50cm Orthomosaic - DLI 04  
- FAUNA Sac Bio Datasets 260707

#### (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**

There are twenty-eight known records of Declared Rare and Priority Flora within a five kilometre radius of the area under application. The closest known record is a Priority 4 species, *Acacia flagellif*, located approximately 2.8km south of the application area, and occurs on a different soil and vegetation type to the proposed clearing. Two Priority 4 species and one Priority 3 species are located approximately 3.7km west of the application area, and occur on the same Heddl vegetation complex and soil type as the proposed clearing.

Aerial photos suggest that the area to be cleared is in degraded condition (Keighery, 1994) with limited scope for regeneration without intensive management. The application area forms part of a discreet area of native vegetation on the low dunal system within the Leschenault Peninsula region, and is isolated from other areas of vegetation by the Leschenault Estuary and large areas that have been cleared as a result of developmental activities.

Given the disturbed condition and isolated location of the vegetation under application, the proposed clearing area is unlikely to be necessary for the continued existence of rare flora.

**Methodology**      GIS Database:  
- DEFL SAC Bio Dataset 260707  
- Wellington\_WAHERB SAC Bio Dataset 260707  
- Heddl Vegetation Complexes - DEP 21/06/95 (Veg Type)

**(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**

There are fifteen known records of Threatened Ecological Communities (TECs) within a ten kilometre radius of the proposed clearing, the closest of these being approximately 6.5km to the south of the area under application. All TECs identified within a ten kilometre radius of the proposed clearing occur on different vegetation types and soil types to that of the application area.

Given that the known occurrences of TECs occur on different vegetation and soil types to the vegetation under application, and that the application area appears to be degraded as suggested from aerial photography, native vegetation within the proposed clearing is unlikely to be necessary for the maintenance of a threatened ecological community.

**Methodology** GIS Database:  
 - TEC\_Points SAC Bio Dataset 260707  
 - Bunbury 50cm Orthomosaic - DLI 04  
 - Heddle Vegetation Complexes - DEP 21/06/95 (Veg Type)  
 - Soils, Statewide - DA 11/99

**(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 (ha)	Current Extent Remaining (ha)	Remaining (%)	Conservation Status**	% in Secure Tenure
IBRA Bioregion: Swan Coastal Plain	1,501,456***	571,758***	38.1***	Depleted	24.3***
Shire: Bunbury	56,300*	1,688*	3.0*	Endangered	
Beard Unit 3 (within SCP Bioregion)	17,472***	2,951***	16.9***	Vulnerable	4.6***
Beard Unit 3 (Regional)	2,661,514***	1,863,982***	70.0***	Least Concern	26.2***
Heddle Complex: Quindalup	36,013	17,820	49.5	Depleted	5.3

\* (Shepherd et al. 2001)

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

\*\*\* (Shepherd, 2006)

The area under application is located in the City of Bunbury and within the Swan Coastal Plain Bioregion. The extent of pre-European vegetation within these areas is 3.0% and 38.1% respectively (Shepherd et al., 2001; Shepherd, 2006).

The vegetation proposed to be cleared is a component of Beard Vegetation Association 3 (Hopkins et al., 2001) of which there is 16.9% of the pre-European vegetation extent remaining within the Swan Coastal Plain Bioregion (Shepherd, 2006), and 70% remaining regionally. While this vegetation complex is considered to have a 'vulnerable' conservation status locally, it is of 'least concern' in a regional context (Department of Natural Resources and Environment, 2002).

The area under application falls within Heddle Quindalup Complex of which there is 49.5% of the pre-European extent remaining (Heddle, 1980), and has a conservation status of 'depleted' (Department of Natural Resources and Environment, 2002).

Although Beard Vegetation Association 3 is poorly represented locally, it is regionally extensive in size. Given the small area proposed to be cleared relative to the regional extent of the vegetation complex under application, the proposal is unlikely to be at variance to this principle.

**Methodology** Shepherd et al (2001)  
 Shepherd (2006)  
 Heddle (1980)  
 Hopkins et al (2001)  
 Department of Natural Resources and Environment (2002)

GIS Database:

- Pre-European Vegetation - DA 10/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Heddle Vegetation Complexes - DEP 21/06/95 (Veg Type)

**(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 proposed clearing is located approximately 58m north of the Leschenault Estuary and 135m south-west of a perennial lake. Due to the low topography and shallow gradients of the local area (0 - 10m AHD), clearing of native vegetation as proposed is unlikely to compromise the values of these water bodies.

A Multiple Use Wetland (UFI 1065) intersects the north-east corner of the proposed clearing. This wetland is classified as forming a peripheral section of the Leschenault Estuary. Although the Leschenault Estuary has been identified as an Environmentally Sensitive Area (ESA), this classification does not extend to the portion of the Multiple Use Wetland that intersects the proposed clearing.

Given that the application area is associated with a multiple use wetland, the proposal is at variance to this principle.

The area of proposed clearing that intersects the multiple use wetland is approximately 0.024ha (240 m<sup>2</sup>) and appears to have been significantly altered through previous disturbance. Given the small size and the degraded condition of the portion of proposed clearing associated with the mapped wetland, removal of native vegetation is unlikely to impact on the values of the multiple use wetland.

**Methodology GIS Database:**

- Hydrography, Linear - DOE 1/2/04
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
- Clearing Regulations - Environmentally Sensitive Areas - DOE 30/0/05
- Topographic Contours, Statewide - DOLA 12/09/02

**(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 topography of the region is relatively flat with an elevation rising from 0 -10m AHD, and has a mean annual rainfall of 800mm. Groundwater salinity has been mapped between 500 - 1000mg/L TDS (Total Dissolved Solids).

The area under application lies within an area that has been identified as having a high to moderate risk of Acid Sulphate Soil (ASS) materials occurring within 3m of natural soil surfaces that could be disturbed by most land development activities (ie drainage, excavations, dewatering). It is highly unlikely that the removal of native vegetation within the application area will disturb natural soil surfaces that would result in the occurrence of ASS materials.

Given the small area proposed to be cleared relative to the above information, the proposed clearing is unlikely to cause appreciable land degradation in the form of wind or water erosion, waterlogging or salinisation.

**Methodology GIS Database:**

- Topographic Contours, Statewide - DOLA 12/09/02
- Groundwater Salinity, Statewide - DOW
- Rainfall, Mean Annual - BOM 30/09/01
- Acid Sulphate Risk Map, Swan Coastal Plain - DEC

**(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 area proposed to be cleared does not lie within or adjacent to areas set aside for conservation. Leschenault Peninsula Conservation Park and a System 6 Conservation Reserve are located approximately 720m north of the proposed clearing. Although the Heddle vegetation complex of these conservation areas is the same as that under application, the reserve and conservation park are separated from the application area by a body of water that forms part of the Leschenault Estuary.

Morangarel Nature Reserve lies 3.3km ENE of the proposed clearing and is of a different vegetation type to the vegetation under application.

Given that the vegetation under application appears to be degraded and is separated from the nearby

conservation park by the Leschenault Estuary, it is highly unlikely that clearing of native vegetation as proposed will impact on the values of the nearby conservation area.

**Methodology** GIS Database:  
 - CALM Managed Lands and Waters - CALM 1/07/05  
 - System 6 Conservation Reserves - DEP 06/95

**(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 site lies within the Leschenault Estuary\_Lower Collie Catchment. The region is of extremely low relief (0 -10m AHD ) due to its position on the shores of the Leschenault Estuary , and has an annual rainfall of 800mm. Groundwater depth was recorded as 5.89m from Top of Casing (TOC) on 6/09/2006 at a monitoring bore located approximately 130m north of the application area.

Due to the small area proposed to be cleared in relation to the topography, it is unlikely that the clearing of native vegetation will cause deterioration in the quality of surface water or groundwater within the local area.

**Methodology** GIS Database:  
 - Hydrographic Catchments - Catchments - DOE 23/03/05  
 - Rainfall, Mean Annual - BOM 30/09/01  
 - Topographic Contours, Statewide - DOLA 12/09/02  
 - Waterways Conservation Act, Waterways Management Areas - DOW

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

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

**Comments**

The City of Bunbury has advised that they have no objections to the proposed clearing. No other submissions from the public have been received.

The Unit Committee received Temporary Planning Approval from the City of Bunbury on 10 July 2007 for construction of a proposed Navy Cadet Unit Water Training Facility.

There is a Native Title Claim over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian Newspaper constitutes legal notification of the Native Title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

Four Aboriginal Sites of Significance are listed within the area under application. These are Collie River Waugal, Ferguson River, Harris River and Preston River. It is the responsibility of the proponent to ensure that no Aboriginal Sites of Significance are damaged through the clearing process. The permit holder will be notified of their obligations under the Aboriginal Heritage Act 1972 in the cover letter to this permit.

**Methodology** GIS Database:  
 - Native Title Claims - DLI 07/11/05  
 - Aboriginal Sites of Significance - DIA

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Building or Structure	Mechanical Removal	0.3	The assessable criteria have been addressed, and the proposal is at variance to Principle (f); and is not likely to be at variance to Principles (a), (b), (c), (d), (e), (g), (h), (i) and (j).

**5. References**

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.

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.

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.

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. (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.

## 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)