



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 4292/1
<b>Permit Holder:</b>	Waroona Golf Club Inc
<b>Duration of Permit:</b>	26 March 2012 – 26 March 2017

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

### PART I – CLEARING AUTHORISED

**1. Purpose for which clearing may be done**

Clearing for the purpose of creating and maintaining rough between fairways.

**2. Land on which clearing is to be done**

Lot 1 on Diagram 28439, WAROONA 6215

**3. Area of Clearing**

The Permit Holder must not clear more than 1 hectare of *understorey* native vegetation within the area hatched yellow on attached Plan 4292/1.

**4. Application**

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

**5. Type of clearing authorised**

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Land Administration Act 1997* or any other written law.

**6. Clearing not authorised**

This Permit does not authorise the Permit Holder to clear grass trees (*Xanthorrhoea* sp.) or kangaroo paws (*Anigozanthos* sp.; *Macropidia* sp.) within the area hatched yellow on attached Plan 4292/1.

**7. Compliance with Assessment Sequence and Management Procedures**

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

### PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

**8. Avoid, minimise etc clearing**

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

## 9. Weed control

- (a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:
- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
  - (ii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
  - (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

## **PART III - RECORD KEEPING AND REPORTING**

### **10. Records must be kept**

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

- (i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (ii) the date that the area was cleared; and
- (iii) the size of the area cleared (in hectares).

### **11. Reporting**

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
- (i) of records required under condition 10 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 26 December 2016 the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

## **DEFINITIONS**

The following meanings are given to terms used in this Permit:

*fill* means material used to increase the ground level, or fill a hollow;

*mulch* means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

*weed/s* means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

*understorey* means, for the purpose of this Permit, all native vegetation that does not include trees



Kelly Faulkner  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

1 March 2012

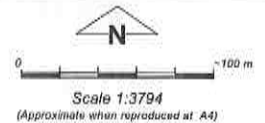
# Plan 4292/1



## LEGEND

- Road Centrelines
- Cadastre for labelling
- Freehold
- Crown Reserve
- State Forest / Timber Reserve
- Marine Park (cont)
- Crown Lease
- Lease / Reserve
- Lease on State Forest / Timber Reserve
- Public Roads
- Unallocated Crown Land
- Water

- ### Clearing Instruments
- Areas Applied to Clear
  - Areas Subject to Conditions
  - Areas Approved to Clear
- Pinjarra 50cm Orthomosaic - Landgate 2006**



Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Date 1/3/10  
K. Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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\* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



## 1. Application details

### 1.1. Permit application details

Permit application No.: 4292/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Waroona Golf Club Incorporated

### 1.3. Property details

Property: LOT 1 ON DIAGRAM 28439 (House No. 140 HILL WAROONA 6215)  
Local Government Area: Shire of Waroona  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Cutting	Recreation

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 1 March 2012

## 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; Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri).	The proposed clearing of 1ha of understorey vegetation is for the purpose of the establishing rough between fairways.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the vegetation was established through a site visit of the Waroona Golf Course by DEC officers in November 2009 and a site visit carried out in March 2011 (DEC 2009, DEC 2011).
Hedde Vegetation Complex: Forrestfield Complex: Vegetation ranges from open forest of Corymbia calophylla (Marri) - Eucalyptus wandoo (Wandoo) - Eucalyptus marginata (Jarrah) to open forest of Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri) - Allocasuarina fraseriana (Sheoak) - Banksia species. Fringing woodland of Eucalyptus rudis (Flooded Gum) in the gullies that dissect this landform.	The vegetation under application consists of groundcover species of Dasypogon sp., Dryandra nivea, Anigozanthos sp., and native sedges such as Juncus sp. and Mesomelaena sp in a degraded to very good (Keighery 1994) condition.	To Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	

Shepherd (2009 and Hedde et al (1980).

## 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 vegetation under application consists of groundcover species of Dasypogon sp., Dryandra nivea, Anigozanthos sp., and native sedges such as Juncus sp. and Mesomelaena sp in a very good to degraded (Keighery 1994) condition (DEC 2009, DEC 2011).

The vegetation under application is a part of a sizeable portion of fauna habitat within the highly cleared eastern portion of the Swan Coastal Plain before the more vegetated areas of the Jarrah Forest. The application area is considered to be a part of significant habitat for local fauna such as the Kangaroo and Quenda (Isodon obesulus fusciventer). It is unlikely that periodic slashing of 1ha of understorey vegetation will significantly impact on this habitat.

The application occurs within the eastern side of the Swan Coastal Plain on the Ridge Hill Shelf (Forrestfield soil and landform unit). This unit is very highly cleared and is typically associated with a suite of threatened ecological communities (TEC) including the FCTs 3a, 3b, 3c, 20b and 20c. Given the location, soil type and landform unit on site, it is considered likely for the vegetation in good to very good (Keighery 1994) condition to consist of the TEC 3b (Eucalyptus calophylla - Eucalyptus marginata woodlands on sandy clayey soils) which is

listed as Vulnerable or 20b (Eastern *Banksia attenuata* and / or *Eucalyptus marginata* woodlands) which is listed as Endangered. It is unlikely that periodic slashing of 1ha of understorey vegetation will significantly impact a TEC.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology**   References  
-DEC (2009)  
-DEC (2011)  
-Keighery (1994)  
GIS Databases  
-SAC Bio dataset ( 27 February 2011)  
- Pre-European vegetation

**(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 Baudin's Black Cockatoo (*Calyptorhynchus baudinii*), Forest red-tailed Black Cockatoo (*C. banksii naso*), Quenda (*Isodon obesulus fusciventer*), Water-rat (*Hydromys chrysogaster*), Brush-tailed Phascogale (*Phascogale tapoatafa ssp.*) and Western Brush Wallaby (*Macropus irma*) have been recorded within the local area (10km radius) of the area under application.

The application area occurs on the border between the extensively cleared eastern side of the Swan Coastal Plain and the more vegetated Jarrah Forest Bioregion. The vegetation under application is a part of a sizeable portion of fauna habitat within the highly cleared eastern portion of the Swan Coastal Plain before the more vegetated areas of the Jarrah Forest. The application area is considered to be a part of significant habitat for local fauna such as the Kangaroo and Quenda (*Isodon obesulus fusciventer*). However, the proposed periodic slashing of 1ha of understorey vegetation is not likely to significantly impact on this habitat. Therefore the proposed clearing is not likely to be at variance to this Principle.

**Methodology**   GIS Databases  
-SAC Bio dataset ( 27 February 2011)

**(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**  
*Synaphea stenoloba* and *Drakaea micrantha* have been recorded within the same soil and Beard Vegetation type as the application area and have been recorded within the local area (10km radius). *Caladenia huegelii* has also been recorded within the local area (10 km radius).

The area under application consists of understorey to Marri Woodland in very good to degraded (Keighery 1994) condition (DEC 2009, DEC 2011).

*Synaphea stenoloba* occurs within winter-wet flats (WA Herbarium 1998-). Given that the application area does not contain winter wet flats it is not likely that this species will occur within the application area.

*Drakaea micrantha* is a tuberous herb that occurs in grey sands in *Allocasuarina fraseriana* and Jarrah woodland (Brown et al 1998). *Caladenia huegelii* is a tuberous herb that occurs on deep sandy soil in mixed woodland of Jarrah and *Banksia* and favours lush undergrowth (Brown et al 1998). Given that the application area consists of Marri woodland it is not likely that these species will occur within the application area.

Given the above, it is not considered for the proposed clearing to be at variance to this Principle.

**Methodology**   References  
-DEC (2009)  
-DEC (2011)  
-Keighery (1994)  
-Brown et al (1998)  
-WA Herbarium (1998-)  
GIS Databases  
-SAC Bio datasets ( 22 February 2011)

**(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 may be at variance to this Principle**  
The Threatened Ecological Community (TEC) Floristic Community Types (FCT) 3b and 20b have been recorded in the local area (10km radius), on the same vegetation and soil type as the application area. In

addition the TEC's SCP3a, SCP10a, SCP08 and SCP09 have also been recorded within the local area (10km radius).

The vegetation under application consists of the understorey of open woodland of *Corymbia calophylla* (Marri) in very good to degraded (Keighery 1994) condition (DEC 2011, DEC 2009).

The application occurs within the eastern side of the Swan Coastal Plain on the Ridge Hill Shelf (Forrestfield soil and landform unit). This unit is highly cleared and is typically associated with a suite of TECs including the FCTs 3a, 3b, 3c, 20b and 20c. Given the location, soil type and landform unit identified on site, it is likely for the vegetation in good to very good (Keighery 1994) condition to consist of the TEC 3b (*Eucalyptus calophylla* - *Eucalyptus marginata* woodlands on sandy clayey soils) which is listed as Vulnerable or 20b (Eastern *Banksia attenuata* and / or *Eucalyptus marginata* woodlands) which is listed as Endangered.

The TECs 3b and 20b have approximately 200ha remaining on the Swan Coastal Plain. The proposed slashing of 1ha will degraded this TEC by only 0.5%. Given, the small area proposed to be cleared (1ha) and the method of clearing (slashing) It is not considered for this TEC to be significantly impacted by the proposed clearing Therefore, the proposed clearing may be at variance to this Principle. Weed management will contribute to reducing the impact of the proposed clearing.

**Methodology**    References  
 -DEC (2009)  
 -DEC (2011)  
 -Keighery (1994)  
 GIS Databases  
 -SAC Bio datasets ( 22 February 2011)

**(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 vegetation under application is described as Beard vegetation association 3 of which there is approximately 18% of pre-European extent remaining (Shepherd 2009). The vegetation under application is also described as Heddle Vegetation Complex Forrestfield Complex, which there is also 18% of its pre-European vegetation extent remaining (EPA 2006).

The Beard Association and Heddle Complex retains less than the threshold level (30%) recommended in the National Objectives Targets for Biodiversity Conservation, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Western Australia 2001).

The vegetation extent in the Shire of Waroona is 55% (Shepherd, 2009), although there is a strong contrast between the portions of the Shire within the heavily vegetated Jarrah Forest Region and the extensively cleared landscape of the eastern side of the Swan Coastal Plain, of which there is approximately 15% of pre-European vegetation remaining. There is approximately 45% of vegetation remaining in the local area (10km radius). Therefore, the application area is a part of a significant remnant.

The proposed slashing of understory vegetation within 1 ha of this remnant is not considered likely to cause significant impact and as a result, the proposed clearing is not likely to impact on a significant remnant in an extensively cleared area.

	Pre-European (ha)	Current extent (ha)	Remaining %
IBRA Bioregion Swan Coastal Plain*	1501209	587889	39.16*
Shire of Waroona*	83231.0	45822.2	55.05*
Local Area (~10km radius)	31500.0	~17890.0	~45.0
Beard type in Bioregion* 3	17364.3	3188.7	18.36
Heddle Complex** Forrestfield Complex	20052.0	3518.0	17.5
Shepherd 2009)* (EPA 2006)**			

**Methodology**    References  
 -Shepherd (2009)

- EPA (2006)
- Commonwealth of Western Australia (2001)
- GIS Databases
- Pre-European Vegetation
- Heddl Vegetation Complexes
- NLWRA, Current Extent of Native Vegetation

**(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 occurs in close proximity to the area under application.

However, it is not considered for the application area to contain wetland dependent vegetation and therefore the proposed clearing is not at variance to this Principle.

**Methodology**    GIS Databases  
 -Hydrography, linear

**(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 application area occurs within the Ridge Hill Shelf and has chief soils of hard acidic yellow soils containing ironstone gravels (Northcote et al 1960-68). This soil type has a high risk of water erosion.

Given the relatively small area proposed to be cleared (1ha) which is scattered over numerous sites and that the proposed clearing is periodical slashing, it is not considered for the proposed clearing to be at variance to this Principle.

**Methodology**    References  
 -Northcote et al (1960-68)  
 GIS Databases  
 -Hydrography, linear

**(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 closest conservation area is a land for wildlife occurring 363m to the east. Hamel State Forest and Dwellingup State Forest occurs 2.1km southwest and 2.7km northeast of the application area, respectively. The application area occurs within the extensively cleared landscape of the eastern side of the Swan Coastal Plain (SCP), of which there is approximately 15% of pre-European vegetation remaining.

The vegetation under application represents a portion of the last sizeable remnant of vegetation within the highly cleared eastern portion of the SCP before the more vegetated areas of the Jarrah Forest. The clearing of the application area would further exacerbate the degradation of this remnant. It is considered that the application area contributes to an ecological linkage between conservation areas. However, the slashing of 1ha is not considered likely to significantly impact the environmental values of nearby conservation areas. The proposed clearing is not likely to be at variance to this Principle.

**Methodology**    GIS Databases  
 -DEC, Tenure  
 -Bushforever  
 - NLWRA, Current Extent of Native Vegetation

**(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**  
 A minor perennial watercourse occurs in close proximity to the area under application.

Given the small area proposed to be cleared 2.7ha and that the proposed clearing is to occur by periodically slashing, it is not considered for the proposed clearing to cause deterioration in the quality of surface and underground water.

**Methodology**    GIS Databases  
 -Hydrography, linear

**(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**

A minor perennial watercourse occurs in close proximity to the area under application.

Given the small area proposed to be cleared 2.7ha and that the proposed clearing is to occur by periodically slashing, it is not considered for the proposed clearing to cause or exacerbate the incidence or intensity of flooding.

**Methodology** GIS Databases  
-Hydrography, linear

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

**Comments**

A letter was sent to the applicant dated 12 May 2011, requesting an offset to avoid, minimise and mitigate the impacts of the proposed clearing. An email was also sent in June 2011 informing the applicant that Shire of Waroona approval is also required. In response to this, the applicant has sent a letter dated 28 June 2011 requesting to reduce the size of the proposed clearing from 2.7 ha down to 1 ha. A letter was sent in November 2011 stating that as the area has decreased an offset is no longer required however consent from Shire of Waroona is still outstanding. A copy of consent from Shire of Waroona was received 20 February 2012 (Shire of Waroona 2012).

The Shire of Waroona is the owner of the property and the Waroona Golf Club currently holds a current lease for the property. Shire of Waroona has informed DEC that approval for slashing is required prior to granting of a clearing permit (Shire of Waroona 2011).

The application area is zoned recreation under the Shire of Waroona's Town Planning Scheme and occurs within the Peel Harvey Environmental Protection Policy Area.

The Waroona Golf Club states that a second rough between fairways will increase speed of play and general playability of the course and also will replace the existing custom and practise of periodical burning of the understorey. This clearing permit would allow the Waroona Golf Club to adhere to their Golf Course Conditions and Maintenance Standards document which they have created. The golf club proposes to only clear outside of the wildflower season.

An ICMS (16406) occurs on the property for slashing of native understorey recorded in 2009. An education letter was sent to the Waroona Golf Club regarding slashing of native vegetation in March 2010.

**Methodology** References  
-Shire of Waroona (2011)  
-Shire of Waroona (2012)  
GIS Databases  
-Town Planning Scheme Zones

**4. References**

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

DEC (2009) Site Inspection for ICMS complaint 16406, Lot 1 Hill Street Waroona. Site inspection undertaken 19/11/2009. Department of Environment and Conservation, Western Australia (DEC ref A167668).

DEC (2011) Site Inspection Report for Clearing Permit Application CPS 4201/1, Lot 1 Hill Street Waroona. Site inspection undertaken 18/03/2011. Department of Environment and Conservation, Western Australia (DEC ref A381162).

EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.

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.

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

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R.



F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shepherd, D.P. (2009) 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.

Shire of Waroona (2011) Correspondence regarding Shire approval for proposed clearing under CPS 4292/1 - Waroona Golf Club - Lot 1 on Diagram 28439 Waroona. DEC ref A410603

Shire of Waroona (2012) Consent for proposed clearing under CPS 4292/1 - Waroona Golf Club - Lot 1 on Diagram 28439 Waroona. DEC ref A476293

Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 30/3/2011).

## 5. 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)