



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: 6349/1  
File Number: DER2014/002817-1  
Duration of Permit: 23 January 2016 to 23 January 2018

### PERMIT HOLDER

Thomas George Marshall  
Michael Edward Gillam

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 4291 on Deposited Plan 202977, Kordabup

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 5.7 hectares of native vegetation within the area hatched yellow on attached Plan 6349/1.

### CONDITIONS

#### 1. Dieback and weed control

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* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

### DEFINITIONS

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

*dieback* means the effect of *Phytophthora* species on native vegetation;

*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 any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

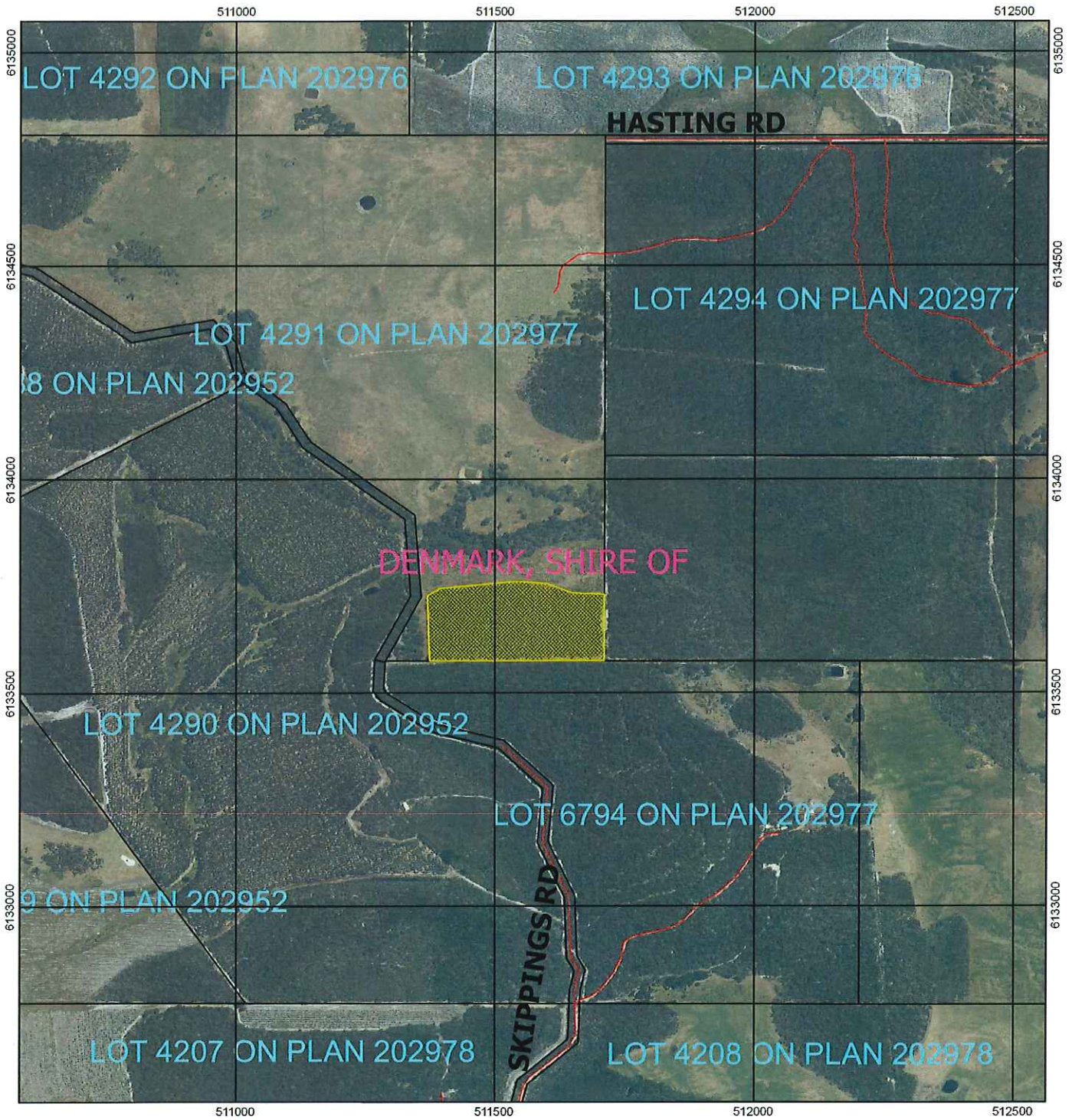
A handwritten signature in blue ink, appearing to read "J Widenbar".

James Widenbar  
A/SENIOR MANAGER  
CLEARING REGULATION

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

24 December 2015

# Plan 6349/1




## Legend

-  Areas approved to clear
-  Roads
-  LGA
-  Cadastre
- Virtual Mosaic (LGATE-V001)
- 

1:8,000

MGA 94  
Geocentric Datum of Australia 1994

 Date 24/12/2015  
James Widenbar

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



## 1. Application details

### 1.1. Permit application details

Permit application No.: 6349/1  
Permit type: Area Permit

### 1.2. Applicant details

Applicant's name: Thomas Marshall and Michael Gillam

### 1.3. Property details

Property: LOT 4291 ON PLAN 202977, KORDABUP  
Local Government Authority: DENMARK, SHIRE OF  
DER Region: South Coast  
DPaW District: FRANKLAND  
LCDC: DENMARK  
Localities: KORDABUP

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit: Granted  
Application:  
Decision Date: 17 December 2015

## 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
Mapped Beard vegetation association 969 is described as mosaic: Medium forest; jarrah-marri / Low forest; jarrah (Shepherd et al, 2001).	The clearing of 5.7 hectares of native vegetation is for the purpose of grazing and pasture production.	Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	The condition and structure of the vegetation under application was determined by a site inspection undertaken by the Department of Agriculture and Food Western Australia (Commissioner of Soil and Land Conservation, 2014) and a flora survey undertaken by Sandiford (2015).
Mattiske vegetation association Dempster (Ds) is described as low woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Eucalyptus staeri on small hills of siltstone plateau in the perhumid zone (Mattiske and Havel, 1998).		To Very Good; Vegetation structure altered, obvious signs of disturbance (Keighery, 1994).	
Mattiske vegetation association Fernley (F) is described as mixture of woodland of Eucalyptus megacarpa, woodland of Eucalyptus patens, tall shrubland of Myrtaceae spp. with some sedgeland of Anarthria spp. on broad plains in hyperhumid and perhumid zones (Mattiske and Havel, 1998).			

### 3. Assessment of application against clearing principles

#### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

##### Comments

##### **Proposed clearing may be at variance to this Principle**

The application is for the proposed clearing of 5.7 hectares of native vegetation within Lot 4291 on Deposited Plan 202977, Kordabup, for the purposes of livestock grazing and pasture production.

A flora survey undertaken by Sandiford (2015) determined that the vegetation under application varies from a degraded (Keighery, 1994) condition to the north of the application area, to a good condition in the centre and southern areas, with a few smaller patches near the southern boundary considered to be in a very good (Keighery, 1994) condition. The degraded areas of vegetation have been subject to disturbance from grazing due to the area not being fenced off from livestock (Sandiford, 2015; Commissioner of Soil and Land Conservation, 2014). Old saw stumps were observed during the flora survey indicating that area has been historically subject to logging (Sandiford, 2015).

The closest priority ecological community (PEC) is located approximately 9.1 kilometres south-east of the application area and is described as "Subtropical and temperate coastal saltmarsh" (Priority 1). Given the observed vegetation type, the vegetation under application is not likely to be a representative of this PEC. In addition, a targeted flora survey did not identify the vegetation under application to be representative of any PEC's (Sandiford, 2015).

Fifteen conservation significant flora taxa have been recorded within a 10 kilometre radius, consisting of thirteen priority flora and two rare flora species. A targeted flora survey for priority and rare flora species was undertaken in late September by Sandiford (2015) and no priority or rare flora taxa were observed during the survey. Given this, and that the vegetation under application has been significantly impacted by grazing, it is unlikely conservation significant flora taxa would be present at the site.

A number of fauna species declared as specially protected under the Wildlife Conservation Act 1950 have been recorded within a 10 kilometre radius including Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*), southern brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*) and quenda, (*Isoodon obesulus* subsp. *fusciventer*) (Parks and Wildlife, 2007-). Given fauna habitats within the application area are well represented elsewhere within the local and regional area, it is unlikely that the vegetation under application provides significant habitat for fauna indigenous to Western Australia.

The proposed clearing may increase the risk of weeds and dieback spreading into adjacent vegetated areas. Weed and dieback management measures will assist in mitigating this risk.

The local area (10 kilometres) surrounding the application area is highly vegetated with approximately 50 per cent of its pre-European vegetation remaining.

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

##### Methodology

##### References:

- Commissioner of Soil and Land Conservation (2014)
- Keighery (1994)
- Parks and Wildlife (2007-)
- Sandiford (2015)

##### GIS Databases:

- SAC Bio Datasets (Accessed December 2015)
- Parks and Wildlife Tenure

#### (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

##### **Proposed clearing is not likely to be at variance to this Principle**

Twenty four fauna species of conservation significance have been recorded within the local area (10 kilometre radius). Of these, four fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 (WC Act) and one priority species listed by Parks and Wildlife may utilise the application area for foraging and nesting. These species are forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*) and southern brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*) listed as rare or likely to become extinct under the WC Act as well as quenda (*Isoodon obesulus* subsp. *fusciventer*), listed as priority 5 by Parks and Wildlife (Parks and Wildlife, 2007-).

Forest red-tailed black cockatoo, Baudin's cockatoo and Carnaby's cockatoo forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*banksia*, *hakea*, *grevillea*), as well as *allocasuarina* and *eucalyptus* species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008). The vegetation under application contains foraging habitat suitable for these species. However, given the vegetation is well represented within the local and regional area, it is unlikely that the area under application would provide significant foraging habitat in a local context.

Potential habitat trees for the three black cockatoo species have a diameter at breast height of greater than 500 millimetres. The regrowth vegetation under application is unlikely to provide breeding habitat for black cockatoos as it is not of an age to provide nesting hollows. Given the size of the majority of trees under application, and the extensive nearby remnant vegetation surrounding the application area, significant habitat is not likely to be found within the area proposed for clearing.

The southern brush-tailed phascogale's (*Phascogale tapoatafa* subsp. *Tapoatafa*) preferred habitat is dry sclerophyll forests and open woodlands that contain hollow-bearing trees (Parks and Wildlife, 2012). It is unlikely that there will be suitable hollows within the trees under application, given the vegetation is predominantly regrowth. Therefore, the application area is unlikely to provide significant habitat for this species.

The quenda has a preference for dense scrubby, often swampy vegetation with dense cover of up to one metre high (Parks and Wildlife, 2012a). Populations that inhabit Jarrah and Wandoo forests are usually associated with watercourses. They often forage in areas of pasture and croplands that lie close to dense cover (DEC, 2012a). The vegetation under application may provide suitable habitat for this species. However, there is vegetation in a similar or better condition located adjacent to the application area which will provide suitable habitat for this species. No loss of significant habitat is expected to result from the proposed clearing.

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

**Methodology**    **References:**  
- Commissioner of Soil and Land Conservation (2014)  
- Parks and Wildlife (2007-)  
- Parks and Wildlife (2012)  
- Parks and Wildlife (2012a)  
- Valentine and Stock (2008)

**GIS Databases:**  
- NLWRA, Current Extent of Native Vegetation  
- SAC Bio Datasets (Accessed December 2015)

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments      Proposed clearing is not likely to be at variance to this Principle**

Three species of rare flora have been recorded within the local area (10 kilometre radius). The application area has the potential to provide suitable habitat for two of the three species recorded due to the comparable soil and vegetation types. The Department of Parks and Wildlife (Parks and Wildlife, 2014) advised that a targeted flora survey was required to confirm the occurrence of these rare flora species within the application area. No rare flora taxa were recorded during the targeted flora survey undertaken in late September by Sandiford (2015).

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

**Methodology**    **References:**  
- Parks and Wildlife (2014)  
- Sandiford (2015)

**GIS Databases:**  
- SAC Bio Datasets (Accessed December 2015)

**(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      Proposed clearing is not likely to be at variance to this Principle**

No threatened ecological communities are mapped within the local area (10 kilometre radius), therefore the proposed clearing is not likely to comprise the whole or part of, or be necessary for the maintenance of a TEC.

The proposed clearing is not likely to be at variance to this Principle.

**Methodology**    **References:**  
- Keighery (1994)

**GIS Databases:**  
- SAC Bio Datasets (Accessed December 2015)

**(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**

**Proposed clearing is not likely to be at variance to this Principle**

The vegetation under application has been identified as Beard vegetation association 969 of which there is 40 per cent of its pre-European extent remaining within the Warren (IBRA) Bioregion (Government of Western Australia, 2014).

The application area is also mapped as Mattiske vegetation complex's, Dempster (Ds) and Fernley (F) of which 65 and 68 per cent of their pre-European extent are remaining respectively (Parks and Wildlife, 2015).

The area under application is located within the Shire of Denmark, within which there is approximately 75 per cent pre-European extent remaining (Government of Western Australia, 2014). Approximately 79 per cent of this vegetation falls within Parks and Wildlife managed land.

The local area has approximately 50 per cent of native vegetation remaining, with the majority of this vegetation located within State Forests.

Given the well represented vegetation types at a local and regional scale, the area under application is not considered to be a significant remnant in an extensively cleared area.

Therefore, the proposed clearing is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
<b>IBRA Bioregion*</b>				
Warren	833,986	660,315	79	85
<b>Shire*</b>				
Shire of Denmark	190,534	142,246	75	79
<b>Beard vegetation association in Bioregion*</b>				
969	19,159	7,600	40	9
<b>Mattiske vegetation complex in Bioregion**</b>				
Ds (Dempster)	3,188	2,068	65	31

**Methodology**

References:

- Commonwealth of Australia (2001)
- \*Government of Western Australia (2014)
- \*\*Parks and Wildlife (2015)

GIS Databases:

- 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**

**Proposed clearing is not at variance to this Principle**

The closest watercourse to the application area is the Kordabup River which occurs approximately 80 metres north of the application area.

Given the distance to mapped hydrological features and as the vegetation under application is not representative of vegetation associated with watercourses or wetlands, The proposed clearing is not at variance to this principle.

**Methodology**

GIS Databases:

- Geomorphic Wetlands, Swan Coastal Plain
- Hydrography, linear
- Hydrography, hierachy

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposed clearing is not likely to be at variance to this Principle**

The soils within the application area consist mainly of sands and gravels on smooth slopes (Dempster slope Phase (Kenddale) Map unit 254KdDMs), with a lesser area of gently undulating sandy terrain of sandy or gravelly yellow duplex soils on rises (Fernley Subsystem Map unit 254KdFE) (Commissioner of Soil and Land Conservation, 2014).

The Commissioner of Soil and Land Conservation (2014) has advised that the proposed clearing is unlikely to result in water erosion due to the highly permeable sandy and gravelly soils present, the short slopes and intended land use.

The risk of wind erosion causing land degradation is low given the soil types present within the application area (Commissioner of Soil and Land Conservation, 2014).

Groundwater salinity levels in the local area have been mapped as marginal at 500 – 1000 milligrams per litre total dissolved solids. The Commissioner of Soil and Land Conservation (2014) has advised that no salinity was observed on site and that the risk of salinity causing land degradation is low.

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

**Methodology References:**

- Commissioner of Soil and Land Conservation (2014)

**GIS Databases:**

- Soils, statewide

**(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 Proposed clearing is not at variance to this Principle**

The closest conservation area to the proposed clearing is Kordabup Nature Reserve, located approximately 1.5 kilometres east of the application area. Given the distance of the application area to this reserve, the proposed clearing will not impact on the environmental values of this conservation area.

Therefore the proposed clearing is not at variance to this principle.

**Methodology GIS Databases:**

- Parks and Wildlife, Tenure

**(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 Proposed clearing is not likely to be at variance to this Principle**

The proposed clearing is unlikely to impact upon water quality given the distance (80 metres) to the closest watercourse and the area of flatland pasture that separates the application area from the watercourse.

Groundwater salinity mapped within the application area is between 500 and 1000 milligrams per litre (marginal). Given this low salinity level, it is considered that the proposed clearing will not lead to a perceptible rise in the watertable and thus an increase in groundwater salinity levels.

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

**Methodology GIS Databases:**

- Hydrology, linear  
- RIWI Surface Water Areas  
- Groundwater Salinity

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Comments Proposed clearing is not likely to be at variance to this Principle**

Given the position of the application area within the landscape and the highly permeable sand and gravelly soils present, the clearing as proposed is not likely to increase the incidence or intensity of flooding (Commissioner of Soil and Land Conservation, 2014).

Therefore, this proposal is not likely to be at variance to this principle.

- Methodology**   References:
- Commissioner of Soil and Land Conservation (2014)
- GIS Databases:
- Hydrogeology, Linear
  - SAC Bio Datasets (Accessed December 2015)

#### **Planning instruments and other relevant matters.**

- Comments**       The application is to clear 5.7 hectares of native vegetation for the purpose of grazing and pasture production.
- The Shire of Denmark (2014) has advised that in accordance with the Shire's Town Planning Scheme No. 3, clearing over 0.5 hectares of native vegetation is considered 'development' and requires Shire planning approval. The applicant was granted planning approval from the Shire of Denmark (2015) on the 8 December 2015.
- There are no known Aboriginal Sites of Significance within the application area.
- No submissions from the public have been received for the proposed clearing.

- Methodology**   References:
- Shire of Denmark (2014)
  - Shire of Denmark (2015)
- GIS Databases:
- Aboriginal Sites of Significance

#### **4. References**

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Commissioner of Soil and Land Conservation (2014) Advice for Clearing Permit CPS 6349/1 - Department of Agriculture and Food Western Australia (DER Ref: A848033).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, 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.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Parks and Wildlife, Perth.
- Parks and Wildlife (2012a) Quenda Isoodon obesulus (Shaw, 1797). Department of Environment and Conservation, Perth, Western Australia.
- Parks and Wildlife (2012) Brush-tailed Phascogale Phascogale tapoatafa (Meyer, 1793). Department of Environment and Conservation, Perth, Western Australia.
- Parks and Wildlife (2014) Species and Communities Advice for Clearing Permit CPS 6349/1. Department of Parks and Wildlife. Western Australia. DER Ref: A849290
- Parks and Wildlife (2015) 2015 South West Forest and Swan Coastal Plain Vegetation Complex Statistics: a report prepared for the Department of Environment Regulation. Current as of March 2015. Department of Parks and Wildlife, Perth, Western Australia.
- Sandiford, E.M (2015) Targeted flora survey Lot 4291 Deposited Plan 2029977, Kordabup (DER Ref:A994284).
- 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 Denmark (2014) Advice for Clearing Permit CPS 6349/1. Western Australia. (DER Ref: A847186).
- Shire of Denmark (2015) Planning approval provided for Clearing Permit CPS 6349/1. (DER Ref: A1019649).
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Ngarara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed 14/12/2015).