



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5588/1
Permit Holder:	Riding for the Disabled Association of Western Australia Bakers Hill Carriage Driving Centre Inc
Duration of Permit:	3 August 2013 to 3 August 2018

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 establishing facilities for the Bakers Hill Equestrian Park.

2. Land on which clearing is to be done

Lot 502 on Deposited Plan 52915 - Reserve 25785, Bakers Hill.

3. Area of Clearing

The Permit Holder must not clear more than 2.6 hectares of native vegetation within the area hatched yellow on attached Plan 5588/1.

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. 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

6. 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.

7. 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*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- shall only move soils in *dry conditions*;
- ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- 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;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

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 the Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.

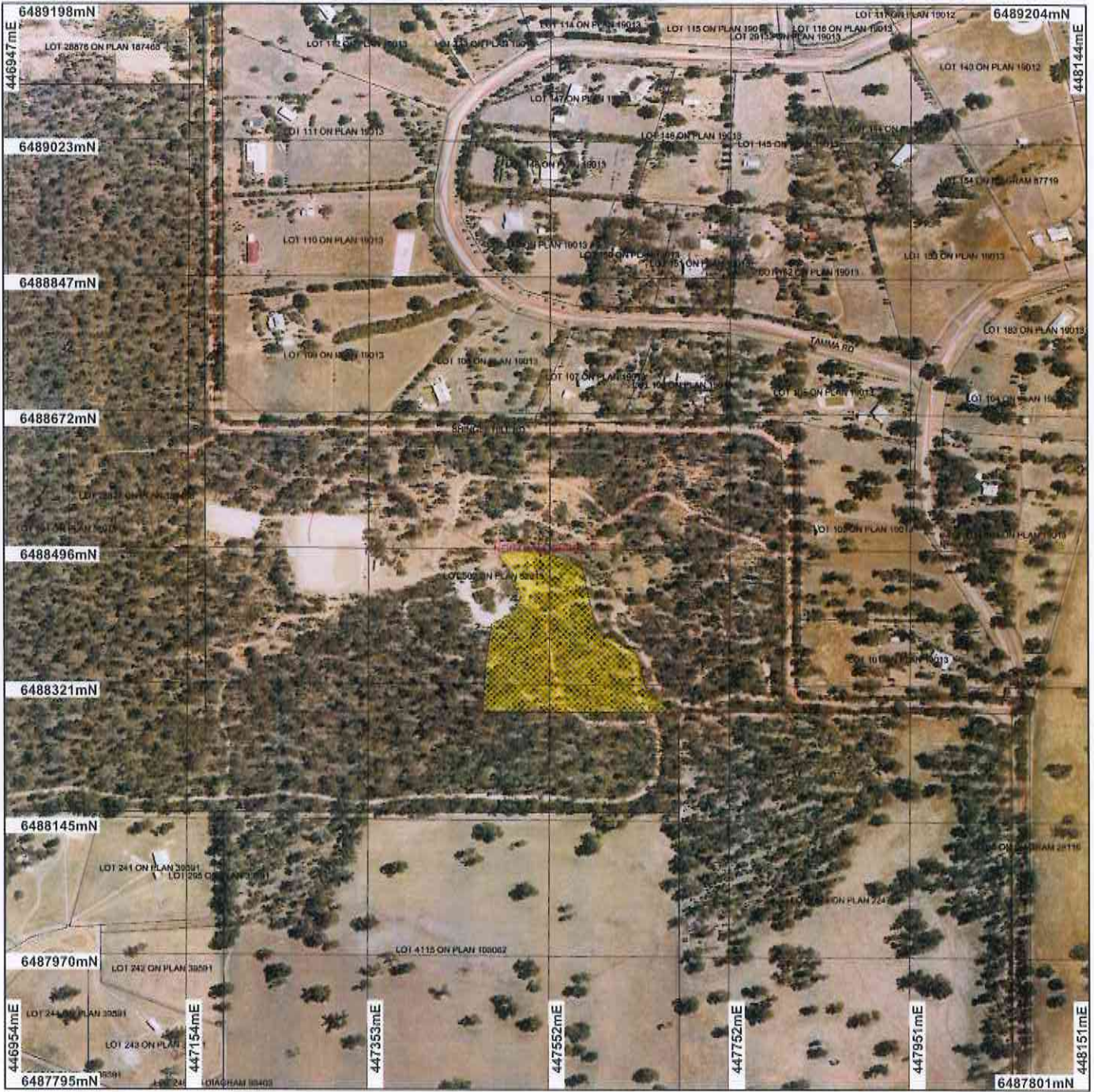


M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

4 July 2013

Plan 5588/1



LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear

Perth Metropolitan North east
40cm Orthomosaic - Landgate
2005

Scale 1:6720
(Approximate when reproduced at Letter)

Geocentric Datum Australia 1994

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

M Warnock Date 6/7/13
M Warnock

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
Our environment, our future
WA Crown Copyright 2002

* Project Data. This data has not been quality assured. Please contact map author for details.



Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 5588/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Riding for the Disabled Association of Western Australia Bakers Hill Carriage Driving Centre Inc

1.3. Property details

Property: LOT 502 ON PLAN 52915 (Lot No. 502 SHINGLE HILL BAKERS HILL 6562)
Local Government Area: Shire of Northam

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 4 July 2013

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 Bannister (1006) is described as medium woodland consisting of jarrah, wandoo & powderbark.	The applicant proposes to clear up to 2.6 hectares of native vegetation within Lot 502 on Deposited Plan 52915 (Reserve 25785), Bakers Hill, for the purpose of establishing facilities for the Bakers Hill Equestrian Park.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the vegetation was established via a site inspection (DEC, 2013).
Mapped Heddle Vegetation Complex within the application area is Yalanbee Complex in Low Rainfall consisting of woodland and less consistently open forest of the Darling Plateau (Hedde et al, 1980).		To	
Mapped Mattiske Vegetation Complex within the application area is Yalanbee (Y6), which is described as woodland of Eucalyptus wandoo, Eucalyptus accedens, less consistently open forest of Eucalyptus marginata subsp. thalassica, Corymbia calophylla on lateritic uplands and breakaway landscapes in arid and perarid zones (Mattiske and Havel, 1998).	The vegetation under application consists of an open woodland largely comprised of Eucalyptus wandoo over Xanthorrhoea preissiana (DEC, 2013).	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	

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 applicant proposes to clear up to 2.6 hectares of native vegetation within Lot 502 on Deposited Plan 52915 (Reserve 25785), Bakers Hill, for the purpose of establishing facilities for the Bakers Hill Equestrian Park. The vegetation under application ranges from a completely degraded (largely confined to the northern portion) to very good (Keighery, 1994) condition, with the majority of the vegetation in very good (Keighery, 1994) condition (DEC, 2013).

Numerous priority flora species have been mapped within the local area (10 kilometre radius). The closest of these is mapped approximately one kilometre south east of the application area. This priority 4 species is a rosette perennial herb with a preference for brown loams over laterite on hillslopes within Jarrah and Marri forest and Wandoo woodland (Western Australian Herbarium, 1998-). The application area is comprised of Wandoo woodland with soils comprised of lateritic gravel (DEC, 2013), therefore this species has the potential to occur within the application area. However, given that this species is a priority 4 species that is adequately reserved in nearby conservation estate, it is considered that the conservation status of this species will not be jeopardised by this proposal.

Two other priority flora species (priority 4) have been mapped within three kilometres of the application area and have a preference for brown loam soils on granite outcrops and breakaways (Western Australian Herbarium, 1998-). There are no granite outcrops or breakaways located on site (DEC, 2013), therefore these species are unlikely to occur within the area of proposed clearing.

There are no priority or threatened ecological communities mapped within the local area (10 kilometre radius).

The disturbance caused by the proposed clearing will increase the likelihood of weeds and dieback spreading into adjacent vegetated areas. Weed and dieback management practices will assist in reducing the risk of the spread of weeds and dieback.

The local area (10 kilometre) surrounding the proposed clearing retains approximately 35 percent of pre-European vegetation.

The application area may provide habitat for the western brush wallaby (*Macropus irma*) and bush stone-curlew (*Burhinus grallarius*), both are conservation significant (priority 4) species. However, given that there are large areas of high quality vegetation located adjacent to the application area, which have undergone less disturbance, it is not likely for the vegetation under application to provide significant habitat for these species.

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

Methodology References:
-DEC (2013)
-Keighery (1994)
-Western Australian Herbarium (1998-)

GIS Databases:
-NLWRA, Vegetation Remaining
-SAC Bio Datasets (Accessed June 2013)

(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**
Several fauna species of conservation significance have been recorded within the local area (10 kilometre radius), including *Calyptorhynchus baudinii* (Baudin's cockatoo), *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Dasyurus geoffroyi* (Chuditch), *Burhinus grallarius* (bush stone-curlew) and *Macropus irma* (western brush wallaby) (DEC, 2007-).

Suitable habitat may be present for the western brush wallaby (*Macropus irma*) and bush stone-curlew (*Burhinus grallarius*) on site, as both species have a preference for open woodlands (DEC, 2006). However, given that the fauna habitats within the application area are better represented elsewhere within the local area, it is unlikely that the proposed clearing will impact significant fauna habitat.

The application area falls within a confirmed Carnaby's cockatoo breeding area and within six kilometres of a confirmed roosting area. Several large *Eucalyptus wandoo* with hollows occur adjacent to the application area (DEC, 2013), and may provide breeding habitat for black cockatoos, however these trees will not be impacted on by the proposed clearing. No large mature trees with hollows were identified within the application area, therefore the proposed clearing is not likely to impact upon breeding habitat for Carnaby's or Baudin's cockatoo (DEC, 2013). Preferable foraging habitat for these species is not found on site (DEC, 2013).

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

Methodology References:
-DEC (2006)
-DEC (2007-)
-DEC (2013)

GIS Databases:
-Carnaby's Cockatoo, Confirmed Breeding Areas
-Carnaby's Cockatoo, Confirmed Roosting Areas

(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**
One species of rare flora has been mapped within the local area (10 kilometre radius). This species has been mapped approximately 8.5 kilometres from the application area and has a preference for sand, loams and granite outcrops, often growing in rock crevices (Western Australian Herbarium, 1998-).

The preference for granite outcrops is not met on site, therefore it is not likely that the vegetation under application includes or is necessary for the continued existence of this species.

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

Methodology References:
-Western Australian Herbarium (1998-)

GIS Databases:
-SAC Bio Datasets (Accessed June 2013)

(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 no threatened ecological communities mapped within the local area (10 kilometre radius).

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

Methodology GIS Databases:
-SAC Bio Datasets (Accessed June 2013)

(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 local area surrounding the proposed clearing (10 kilometre radius) retains approximately 35 per cent pre-European vegetation.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The Beard Vegetation Association, Heddle Vegetation Complex and Mattiske Vegetation Complex mapped within the application area all retain greater than 48 per cent native vegetation within the Jarrah Forest Bioregion.

The Shire of Northam retains approximately 24 per cent native vegetation, however this figure is not representative of the vegetation remaining in the local area, as the eastern half of the Shire of Northam (Wheatbelt Region) has been extensively cleared, and the application area falls within the western half of the Shire (Government of Western Australia, 2013).

Given the above, the vegetation under application is not within an area that has been extensively cleared, therefore, the proposed clearing is not likely to be at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion				
Jarrah Forest	4 506 660	2 459 299	55	68
Shire*				
Shire of Northam	143 126	33 909	24	24
Beard Vegetation Association in Bioregion				
Bannister (1006)	44 908	22 025	49	46
Heddle Vegetation Complex**				
Yalanbee Complex in Low Rainfall	74 023	46 847	63	33
Mattiske Vegetation Complex***				
Yalanbee (Y6)	158 392	82 350	52	26

*Government of Western Australia (2013)
** Heddle et al (1980)
*** Mattiske and Havel (1998)

Methodology References:
-Government of Western Australia (2013)

-Heddle et al (1980)
-Mattiske and Havel (1998)
-Commonwealth of Australia (2001)

GIS Databases:
-NLWRA, Vegetation Remaining

(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

There are numerous minor, non-perennial watercourses located within the local area. The closest of these is a tributary of Clackline brook, located approximately 550 metres north of the application area.

There are several undefined geomorphic wetlands east of the application area, the closest of which occurs approximately 1.3 km north-east of the application area.

No riparian vegetation was identified on site (DEC, 2013) and given that the closest watercourse occurs more than 500 metres from the application area, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-DEC (2013)

GIS Databases:
-Hydrography, linear
-Hydrography, hierachy
-Geomorphic Wetlands Wheatbelt

(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 soils within the application area have been mapped by Northcote et al (1960-68) as hard acidic yellow mottled soils along with sandy acidic yellow mottled soils, all of which contain moderate to large amounts of ironstone gravels in their surface horizons. Ironstone gravels occur on the ridge crests and on the fine gravel deposits of the gently undulating parts of the unit, along with leached sands.

Given the high permeability of sand and gravelly soils, it is unlikely that water erosion will occur post clearing, particularly given the distance to the nearest watercourse or wetland (500 metres) and the relatively low annual rainfall (700 millimetres per annum) of the local area.

Sandy soils are prone to wind erosion, however given the small size of the proposed clearing, and that well vegetated areas surround much of the application area, it is not likely for wind erosion to cause appreciable land degradation post clearing.

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

Methodology References:
-Northcote et al (1960-68)

GIS Databases:
-Mean Annual Rainfall
-Hydrography, linear
-Hydrography, hierachy
-Geomorphic Wetlands Wheatbelt

(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 several conservation areas within the local area, the closest of these being Woondowing Nature Reserve, located approximately 1.6 km west of the application area.

Given the distance of the application area to this reserve, it is unlikely that the clearing will impact on the environmental values of this conservation area.

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

Methodology GIS Databases:

(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

There are numerous minor, non-perennial watercourses located within the local area. The closest of these is a tributary of Clackline brook, located approximately 500 metres north of the application area.

There are several undefined geomorphic wetlands east of the application area, the closest of which occurs approximately 1.3 km north-east of the application area.

Given the size of the area under application and the distance to the closest mapped wetland or watercourse, it is unlikely the proposed clearing will cause deterioration in the quality of surface water.

Groundwater salinity on site is mapped between 3000 and 7000 milligrams per litre (saline). Despite this relatively high salinity level, given the small size of the proposed clearing, and the well vegetated areas immediately adjacent, it is not likely the proposed clearing will lead to a perceptible rise in the watertable or an increase in groundwater salinity levels.

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

Methodology

GIS Databases:

-Groundwater Salinity Statewide

-Hydrography, linear

-Hydrography, hierachy

-Geomorphic Wetlands Wheatbelt

(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

Given that there are no wetlands or watercourses located on site, and the relatively low annual rainfall (700 millimetres per annum) of the local area, it is not likely that the proposed clearing will cause or exacerbate the incidence or intensity of flooding.

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

Methodology

GIS Databases:

-Hydrography, linear

-Hydrography, hierachy

-Geomorphic Wetlands Wheatbelt

-Rainfall, Mean Annual

Planning Instrument, Native Title, Previous EPA decision or other matter.

Comments

The application area is zoned 'parks and recreation' under the Town Planning Scheme Zone.

The Riding for the Disabled Bakers Hill Carriage Driving Centre Inc (RDBHCDC) submitted an application to the Shire of Northam for approval to use a portion of land (Lot 502) vested with the Shire, zoned as Parks and Recreation, for the purpose of moving the current Equestrian Centre. It is advised that the move is required to provide more opportunities for people with disabilities within the Shire of Northam (Shire of Northam, 2012).

The Shire of Northam has since granted approval for RDBHCDC to undertake the proposed Equestrian Centre move into Lot 502 (Shire of Northam, 2013).

A submission (2013) has been received for the proposed clearing. The submission objects the proposed clearing on the grounds that the vegetation under application provides habitat for fauna and that other options should be utilised to retain this habitat. The significance of fauna habitat has been addressed under the clearing Principles. The area has planning approval for the proposed land use.

The proponent was queried as to whether an alternate, previously cleared location could be utilised for the new Equestrian Centre. It was advised that alternate areas are unable to be utilised as they have been laden with clay overfill, resulting in an unsuitable area for an equestrian centre. It is advised that numerous small gravel pits where previous extraction had occurred further render these areas unsuitable. The proponent advised that heavily disturbed areas have been utilised where possible, including a section within the northern portion of the application area.

Methodology

References:

- Shire of Northam (2012)
- Shire of Northam (2013)
- Submission (2013)

- GIS Databases:
- Town Planning Scheme Zones

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2006) Fauna Habitat Notes, numerous species. Department of Environment and Conservation Western Australia.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed June 2013.
- DEC (2013) Site Inspection Report for Clearing Permit Application CPS 5588/1. Site inspection undertaken 17/06/2013. Department of Environment and Conservation, Western Australia (DEC Ref A521681).
- Government of Western Australia (2013); 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- 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.
- 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.
- 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., 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 Northam (2012) Excerpt of Meeting Minutes 15 August 2012. Additional Information for CPS 5588/1. DEC Ref A629555.
- Shire of Northam (2013) Approval to undertake proposed activity on Reserve 25785, Bakers Hill. DEC Ref A:644176
- Submission (2013). Direct Interest Submission for CPS5588/1. DEC Ref: A643923 and A643935.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed June 2013)

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)