GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6222/1
Permit Holder:	Shire of Northam
Duration of Permit:	15 November 2014 – 15 November 2019

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 road construction.

2. **Land on which clearing is to be done**
   Lot 27957 on Deposited Plan 166720, Wundowie.
   Golf Links Road reserve (PIN 11738680, PIN 11738677 and PIN 11665910), Wundowie.

3. **Area of Clearing**
   The Permit Holder must not clear more than 2 hectares of native vegetation within the area hatched yellow on attached Plan 6222/1.

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 the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

PART II –MANAGEMENT CONDITIONS

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:
   (a) avoid the clearing of native vegetation;
   (b) minimise the amount of native vegetation to be cleared; and
   (c) 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*:

(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;

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared; and

(d) only move soils in *dry conditions*.

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 a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or

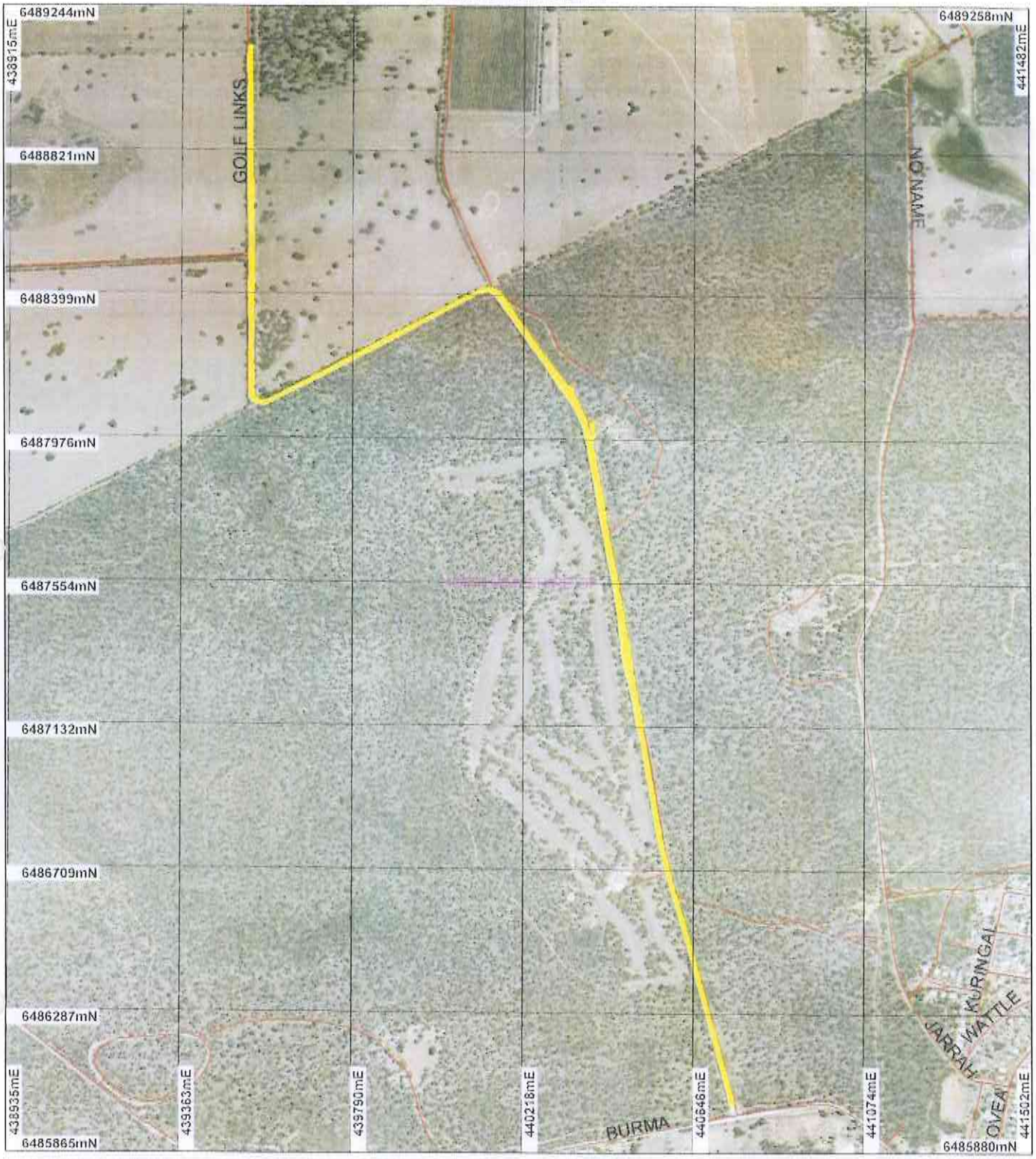
(c) not indigenous to the area concerned.

M Warnock
SENIOR MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

16 October 2014

Plan 6222/1



LEGEND

Road Centrelines
Local Government Authorities 1

Clearing Instruments

Area Approved to Clear

Perth Metropolitan North East 49cm Orthomosaic

N

0 375 m

Scale 1:15000

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

Date: 16/10/14

M Warnock

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

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

Government of Western Australia
Department of Environment Regulation

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

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 6222/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Northam

1.3. Property details

Property: ROAD RESERVE (WUNDOWIE 6560)
LOT 27957 ON PLAN 166720 (WUNDOWIE 6560)
Local Government Area: Shire of Northam

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		Mechanical Removal	Road construction or maintenance

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 16 October 2014

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
The vegetation under application is mapped as: Beard vegetation association 3003 which is described as medium forest; jarrah and marri on laterite with wandoo in valleys, sandy swamps with teatree and Banksia (Shepherd et al, 2001). Mattiske Vegetation Complex Y5 which is described as a mixture of open forest of Eucalyptus marginata subsp. thalassica-Corymbia calophylla and woodland of Eucalyptus wandoo on lateritic uplands in semiarid to perarid zones (Mattiske and Havel, 1998).	To clear two hectares of native vegetation within Golf Links Road Reserve, for road widening and construction.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) To Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the vegetation under application was determined via a Department of Environment Regulation site inspection (DER, 2014) on 2 October 2014.

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 application is to clear two hectares of native vegetation within Golf Links Road reserve, for the purpose of road widening and construction. The vegetation under application is described as an open Eucalyptus marginata, Corymbia calophylla forest over Banksia squarrosa subsp. squarrosa and Hibbertia sp. (DER, 2014). A site inspection of the application area defined three zones of clearing within the application area based on the condition of the vegetation and amount of clearing to be undertaken.

Zone one runs north from the intersection of Golf Links road and Burma road accounting for approximately 50 percent of the application area. The majority of the vegetation is in a degraded (Keighery, 1994) condition consisting of regrowth vegetation along road side drainage infrastructure and vegetation previously cleared in order to maintain adjoining power line infrastructure. No large eucalypts or Corymbia were recorded within this area (DER, 2014).

Zone two runs in a north-east to south-west direction accounting for approximately 0.25 hectares of native vegetation. The majority of the vegetation in this area is in a very good (Keighery, 1994) condition and large Eucalypts and Corymbia are present within the application area (DER, 2014). Clearing will remove three to four metres of vegetation on the southern side of the road reserve, contiguous with Woondowing Nature Reserve

Zone three runs in a north south direction along the northern portion of Golf Links road. The vegetation is in a degraded (Keighery, 1994) condition with little to no understorey present. Large Eucalypts and Corymbia were recorded within this area. Clearing is to take place across the width of the road reserve.

The local area (10 kilometre radius) surrounding the application area retains approximately 40 percent native vegetation. The application area falls immediately adjacent to the Woondowing Nature Reserve.
Although the application area forms habitat for black cockatoos, given the amount of vegetation immediately adjoining the application area, the linear nature of clearing, the vegetation condition and as no hollow bearing trees were recorded; the application area is not likely to form significant habitat for endemic fauna.

No threatened or priority ecological communities have been recorded within the local area.

Sixteen priority flora species have been recorded within the local area (10 kilometre radius). Given the mapped and observed (DER, 2014) soil and vegetation types, the application area may contain suitable habitat for four of these. All four species have been classified as either Priority 3 or Priority 4.

The Department of Parks and Wildlife define Priority 3 as taxa that are known from collections from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Taxa may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Priority 4 taxa are considered not threatened or in need of special protection but could be if circumstances change. Given this, the linear nature of clearing and the condition of the vegetation, the proposed clearing is not likely to have a significant impact on these species.

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

Methodology

References:
DER (2014)
Keighery (1994)

GIS Datasets:
- SacBiodataSets - October 2014

(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 local area (10 kilometre radius) surrounding the application area retains approximately 40 percent native vegetation. The application area falls immediately adjacent to the Woondowing Nature Reserve, a large remnant of native vegetation. The vegetation under application has been described as an open Eucalyptus marginata, Corymbia calophylla forest over Banksia squarrosa subsp. squarrosa and Hibbertia sp (DER, 2014). Approximately 0.25 hectares of the application area is in a very good (Keighery, 1994) condition.

Numerous fauna species of conservation significance have been recorded within the local area (10 kilometre radius) (DEC, 2007-). Given the linear nature of clearing, the degraded condition of the majority of the vegetation under application and the amount of vegetation within the local area; the application is not likely to form significant habitat for terrestrial fauna.

The avian fauna species Calyptorhynchus latirostris (Carnaby's cockatoo), Calyptorhynchus banksii subsp. naso (forest red-tailed black-cockatoo) and Calyptorhynchus baudinii (Baudin's cockatoo) have been recorded within the local area. These species area listed as endangered and vulnerable under the Environmental Protection and Biodiversity Conservation Act 1999 as well as the Wildlife Conservation Act 1950.

A site inspection of the application area (DER, 2014) recorded large Eucalyptus marginata and Corymbia calophylla within the application area, evidence of forest red-tailed black-cockatoo's foraging was observed within the application area. No trees containing hollows suitable for black cockatoo breeding were observed within the application area (DER, 2014).

Carnaby's cockatoo nest in large hollows of eucalyptus trees and forages on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (Banksia, Hakea, Grevillea), Eucalyptus species, Corymbia species and a range of introduced species, especially seeds from cones of Pinus species (Shah, 2006; Valentine and Stock, 2008). Clearing of feeding habitat on the Swan Coastal Plain poses a significant threat to the long term survival of Carnaby's cockatoos (Shah, 2006).

The application area is mapped within a Confirmed Carnaby's cockatoo breeding area and within unconfirmed feeding habitat.

While the majority of the application area has been recorded in a degraded condition, approximately 0.25 hectares has been observed in a very good (Keighery, 1994) condition (DER, 2014). Although this area constitutes feeding habitat for black cockatoos, given the amount of vegetation immediately adjacent to the

application area, the linear nature of clearing, the relatively small size and as no hollow bearing trees were recorded within the area; the application area is not likely to form significant habitat for black cockatoos.

Given the amount of native vegetation within the local area the vegetation under application is not likely to be significant in the movement of indigenous fauna through the landscape.

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

Methodology

References:
DEC (2007-)
DER (2014)
Shah (2006)
Valentine and Stock (2008)

GIS Datasets:
- Carnaby Cockatoo breeding sites
- Carnaby Cockatoo feeding

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

Comments

Proposal is not likely to be at variance to this Principle

The vegetation under application is described as an open Eucalyptus marginata, Corymbia calophylla forest over Banksia squarrosa subsp. squarrosa and Hibbertia sp. (DER, 2014).

One rare flora species has been recorded within the local area (10 kilometre radius), 9.5 kilometres from the application area. Given this species habitat preference for granite outcrops and hills (Brown et. al., 1998) and the observed vegetation type (DER, 2014); it is not likely to be present within the application area.

A site inspection of the application area did not observe this distinctive species within the application area.

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

Methodology

Reference:
Brown et. al. (1998)
DER (2014)

GIS Databases:
- SAC Biodatasets - accessed October 2014

(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 at variance to this Principle

No threatened ecological communities (TEC) have been recorded within the local area. The closest falls 30 kilometres west of the application area within the swan coastal plain.

The vegetation under application is described as an open Eucalyptus marginata, Corymbia calophylla forest over Banksia squarrosa subsp. squarrosa and Hibbertia sp. (DER, 2014). This vegetation type is not synonymous with the mapped TEC.

Given the above, the application is not at variance to this principle.

Methodology

Reference:
DER (2014)

GIS Databases:
- SAC Biodatasets - accessed October 2014

(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 area under application is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 54 percent of its pre-European vegetation extent remaining (Government of Western Australia, 2013).

The vegetation under application is mapped as Beard vegetation association 3003 of which there is approximately 59 percent of its pre-European extent remaining within the Jarrah Forest bioregion (Government of Western Australia, 2013).

The area under application is located within the Shire of Northam, within which there is approximately 23 percent pre-European extent remaining (Government of Western Australia, 2013).

The application area is mapped as Mattiske vegetation association Y5 within which there is approximately 68 percent pre-European extent remaining.

The local area (10 kilometre radius) retains approximately 40 percent native vegetation.

The application area falls immediately adjacent to the Woondowing Nature Reserve, a large remnant of native 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 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

As all mapped vegetation associations and the local area retain above 30 percent pre-European vegetation it does not fall within a highly cleared landscape.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion				
Jarrah Forest	4,506,660	2,457,731	54	68
Shire				
Shire of Northam	143,125	33,908	23	23
Beard Vegetation Association within Bioregion				
3003	66,451	39,494	59	45
Mattiske vegetation association				
Y5	124,376	84,654	68	82

Methodology

References:
Commonwealth of Australia (2001)
*Government of Western Australia (2013)

GIS Databases:
- SacBiodataSets - accessed October 2014

(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 at variance to this Principle

No watercourses or wetlands have been mapped within the application area. A site inspection did not reveal any vegetation growing in association with a watercourse or wetland (DER, 2014).

Given the above the application is not at variance to this clearing principle.

Methodology

References:
DER (2014)

GIS Datasets:
- 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 local area surrounding the application retains approximately 40 percent native vegetation. The application area falls adjacent to the Woondowing Nature reserve, a large remnant of native vegetation.

No watercourses or wetlands are present within the application area (DER, 2014).

Given the extent of native vegetation within the local area, the linear nature of the clearing and as no watercourses are present; the application is not likely to lead to wind erosion, water erosion, waterlogging, eutrophication or salinity and is not likely to be at variance to this principle.

Methodology References:
DER (2014)

GIS Datasets:
- 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 may be at variance to this Principle**
The application area runs adjacent to Woondowing Nature Reserve for approximately 650 metres. This accounts for approximately 0.25 hectares of the application area. The vegetation within this area has been observed in a very good (Keighery, 1994) condition (DER, 2014).

Given the proximity of clearing to the reserve, the application has the potential to increase the spread of weeds and dieback into this area. Weed and Dieback management measures are likely to minimise this risk.

Given the above, the application may be at variance to this clearing principle.

Methodology References:
DER (2014)
Keighery (1994)

GIS Datasets:
- DEC 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 **Proposal is not likely to be at variance to this Principle**
The local area surrounding the application retains approximately 40 percent native vegetation. The application area falls adjacent to the Woondowing Nature Reserve, a large remnant of native vegetation.

No watercourses or wetlands are present within the application area (DER, 2014).

Given the extent of native vegetation within the local area, the linear nature of the clearing and as no watercourses are present; the application is not likely to deteriorate the quality of surface or ground water and is not likely to be at variance to this clearing principle.

Methodology References:
DER (2014)

GIS Datasets:
- 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 at variance to this Principle**
Given the linear nature of the application, the proposed clearing will not increase the incidence ot intensity of flooding.

The application is not at variance to this clearing principle.

Methodology GIS Datasets:
- Hydrography linear

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

Comments

Golf Links Road is currently sealed for a section before turning to gravel. The upgrades of the road are in order to service a new subdivision development along the road.

The majority of the application area falls within the road reserve, the exception is a 0.04 hectare area that crosses into adjoining shire land.

No aboriginal sites of significance have been mapped within the application area.

Methodology GIS Data sets:
- 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.

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

DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/. Accessed September 2014.

DER (2014) Site Inspection Report for Clearing Permit Application CPS 6222/1. Golf Links Road reserve, Wanerie. Site inspection undertaken 2/10/2014. Department of Environment Regulation, Western Australia (DER Ref: A816635).

Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.

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.

Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.

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.

Valentine L. E. & Stock W. (2008) Food Resources of Carnaby's Black-Cockatoo (Calyptorhynchus latirostris) in the Gnangara Sustainability Strategy study area. Unpublished report to the Forests Products Commission. Available online: http://ro.ecu.edu.au/ecuworks/6147.