



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6134/1
File Number: DER2014/001181-1
Duration of Permit: 6 December 2014 to 6 December 2016

PERMIT HOLDER

Pullington Investments Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 4376 on Deposited Plan 160673, Wanerie

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 6.1 hectares of native vegetation within the area hatched yellow on attached Plan 6134/1.

CONDITIONS

Nil.

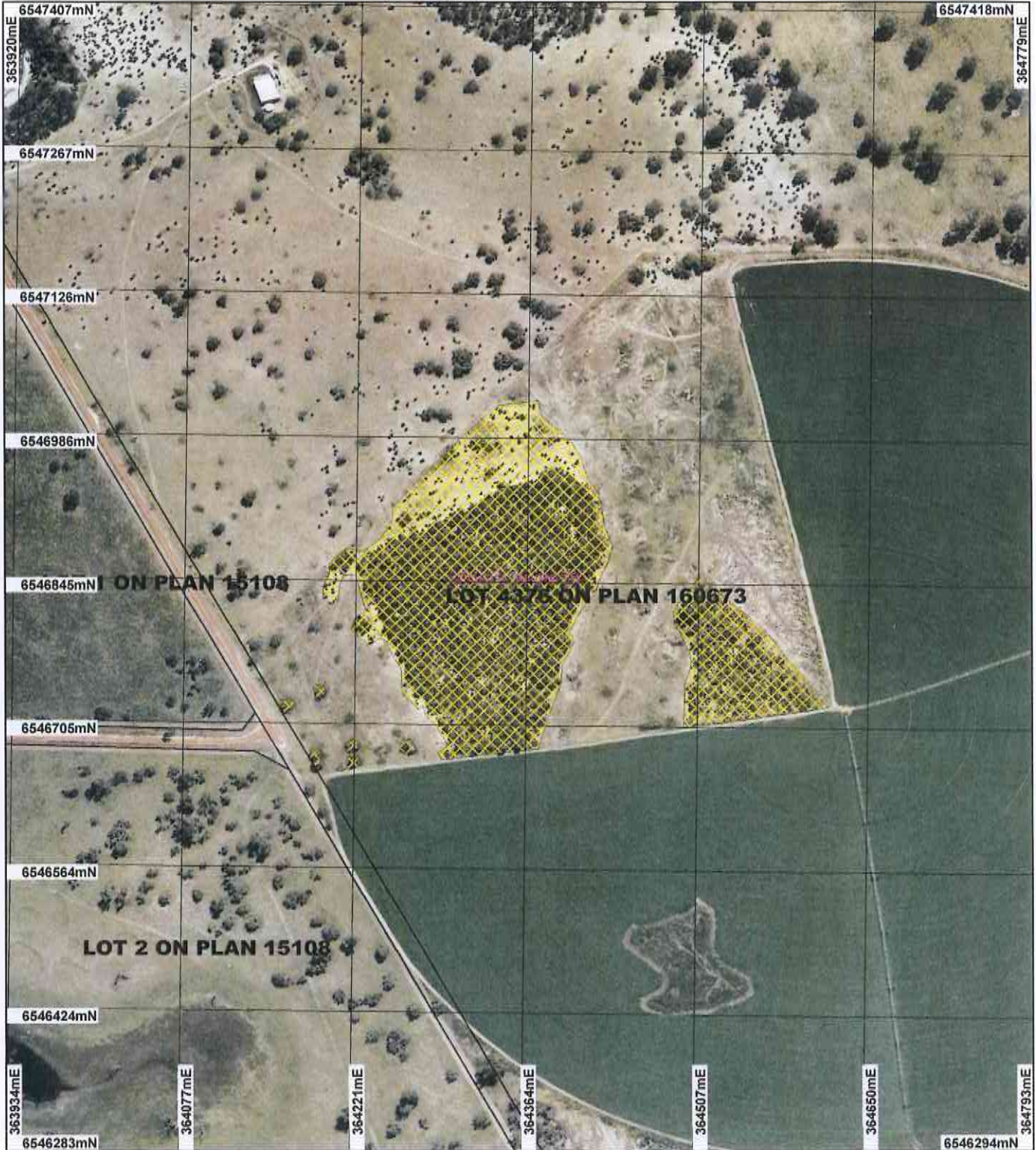
A handwritten signature in black ink, appearing to read "M Warnock", written over a horizontal line.

M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

6 November 2014

Plan - 6134/1



LEGEND

- Road Centrelines
 - Local Government Authorities_1
 - Clearing Instruments
 - Areas Approved to Clear
- Gingin 50cm Orthomosaic - Landgate 2008



Scale 1:5000
(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 or measurement inaccuracies.

M Warnock Date *6/11/14*
M Warnock

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.



Government of Western Australia
Department of Environment Regulation

WA Crown Copyright 2002

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



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6134/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Pullington Investments Pty Ltd

1.3. Property details

Property: LOT 4376 ON PLAN 160673 (House No. 1319 COWALLA WANERIE 6503)
Local Government Area: Shire of Gingin

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 6 November 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:	To clear 6.1 hectares of native vegetation within Lot 4376 on plan 160673, for cropping.	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) of the property on 19 June 2014.
Beard vegetation association 949 which is described as low woodland; banksia (Shepherd et al, 2001).		To	
Heddle Vegetation Complex Karrakatta Complex-North described as predominantly low open forest and low woodland of Banksia species - Eucalyptus todtiana (Pricklybark), less consistently open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus todtiana (Pricklybark) - Banksia species (Heddle et al, 1980).		Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (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 application is to clear 6.1 hectares of native vegetation within Lot 4376 on Deposited Plan 160673, in order to complete a pivot irrigation circle.

The local area (10 kilometre radius) surrounding the application area retains approximately 50 percent vegetation. The mapped Beard vegetation type and IBRA bioregion retain above the recommended level of 30 percent (Government of Western Australia, 2013).

A site inspection of the application area (DER, 2014) described the vegetation under application as Banksia attenuata woodland with Eucalyptus todtiana, Nuytsia floribunda and Xanthorrhoea preissi in a completely degraded to very good (Keighery, 1994) condition. Approximately 2.5 hectares of the application area is in a very good (Keighery, 1994) condition and approximately one hectare is in a good (Keighery, 1994) condition.

Four fauna species of conservation significance have been recorded within the local area (10 kilometre radius) (DEC, 2007-). The application area forms feeding habitat for one of these, Carnaby's cockatoo (*Calyptorhynchus latirostris*). Although the application area constitutes feeding habitat for the species, given the small size of the application area in comparison to the large adjoining reserves the feeding habitat within the application area is not likely to be significant. Furthermore, given the lack of potential roosting trees, the area under application is not likely to form significant roosting habitat (Parks and Wildlife, 2014).

The vegetation under application is not representative of threatened ecological communities mapped within the local area. No priority ecological communities are mapped within the local area.

Seven priority flora species have been recorded within the local area. Given the mapped and observed (DER, 2014) soil and vegetation types, the application area may contain suitable habitat for one of these. This species has been classified as priority 4. Priority 4 taxa are considered not threatened or in need of special protection but could be if circumstances change. Given this and the size of the application area, clearing the vegetation under application is not likely to have a significant impact on this species.

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

Methodology

References:

DEC (2007)
Department of Parks and Wildlife (2014)
DER (2014)
Government of Western Australia (2013)
Keighery (1994)

GIS Datasets:

- SacBiodataSets - accessed 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

Four fauna species of conservation significance have been recorded within the local area (10 kilometre radius) (DEC, 2007-). The application area may form significant habitat for one of these, Carnaby's cockatoo (*Calyptorhynchus latirostris*). This species is listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 and endangered under the Environment Protection and Biodiversity Conservation Act 1999.

A site inspection of the application area (DER, 2014) described the vegetation under application as *Banksia attenuata* woodland with *Eucalyptus todtiana*, *Nuytsia floribunda* and *Xanthorrhoea preissi* in a completely degraded to very good (Keighery, 1994) condition. Approximately 2.5 hectares of the application area is in a very good (Keighery, 1994) condition and approximately one hectare is in a good (Keighery, 1994) condition.

Carnaby's cockatoo nests in large hollows of eucalyptus trees and forages on the seeds, nuts and flowers of a large variety of plants including *Proteas* (*Banksia*, *Hakea*, *Grevillea*), *Eucalypts*, *Corymbias* 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).

Carnaby's cockatoo was once abundant in Western Australia. Since the late 1940s the species has suffered a 30 percent contraction in range, a 50 percent decline in population, and between 1968 and 1990 disappeared from more than a third of its breeding range (Saunders 1990; Johnstone and Storr 1998; Saunders and Ingram 1998; Garnett et al. 2011). Basic ecological theory, expert opinion and recent evidence, suggests that the remaining native and pine plantation foraging habitat on the Swan Coastal Plain is just sufficient to support the current population of Carnaby's cockatoo. Therefore any reduction in the amount of food source will result in a reduction in the carrying capacity of the region and therefore a decline in the population of Carnaby's cockatoo.

The vegetation under application has been mapped as unconfirmed feeding habitat for Carnaby's cockatoo. Areas mapped as unconfirmed feeding habitat are areas of remnant vegetation in the Jarrah Forest IBRA Bioregion that may provide important feeding resources for Carnaby's cockatoo.

Confirmed Carnaby's cockatoo roost sites have been mapped approximately 15 kilometres north, 30 kilometres south west and 35 kilometres north west of the application area (Parks and Wildlife, 2014). The application falls in-between the Gnaragara-Moore River State forest approximately three kilometres to the west of the application area and Moore River National Park approximately four kilometres to the east.

Although the application area constitutes feeding habitat for the species, given the small size of the application area in comparison to the large adjoining reserves the feeding habitat within the application area is not likely to be significant. Furthermore, given the lack of potential roosting trees, the area under application is not likely to form significant roosting habitat (Parks and Wildlife, 2014).

Given the limited connectivity of the application area within the local area it 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-)
Department of Parks and Wildlife (2014)
DER (2014)
Garnett et al. (2011)
Johnstone and Storr (1998)
Keighery (1994)
Saunders (1990)
Saunders and Ingram (1998)
Shah (2006)
Valentine and Stock (2008)

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

(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 rare flora species has been recorded within the local area. Given this species habitat preference for winter wet areas (Brown et. al., 1998) and the observed vegetation type (DER, 2014); it is not likely to be present within the application area.

Therefore the clearing as proposed 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**
One threatened ecological community has been recorded within the local area (10 kilometre radius), associated with clay pans that are not present within the application area (DER, 2014).

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 Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 39 percent of its pre-European vegetation extent remaining (Government of Western Australia, 2013).

The vegetation under application is mapped as Beard vegetation association 949 of which there is approximately 57 percent of its pre-European extent remaining within the Swan Coastal Plain bioregion (Government of Western Australia, 2013).

The area under application is located within the Shire of Gingin, within which there is approximately 55 percent pre-European extent remaining (Government of Western Australia, 2013).

The application area is mapped as Heddle vegetation association Karrakatta Complex-North within which there is approximately 43 percent pre-European extent remaining.

The local area (10 kilometre radius) retains approximately 50 percent 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).

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

	Pre-European (ha)	Current Extent Remaining (ha)	Extent Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion Swan Coastal Plain	1,501,221	586,975	39	36
Shire Shire of Gingin	319,670	177,334	55	46
Beard Vegetation Association within Bioregion 949	209,983	121,216	57	55
Heddle Vegetation Complex Karrakatta Complex-North	44,273	19,296	43	25

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 are present within the application area (DER, 2014).

A perennial swamp and non-perennial lake are located approximately 500 meters from the application area. The application area is situated within a depression in the landscape therefore any surface water runoff is likely to be retained on site.

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

Methodology References:
DER (2014)

GIS Datasets:
- Hydrography linear
- Topographic contours statewide

(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**
Groundwater salinity within the application area is mapped between 500 - 1000 milligrams per litre. Given this, clearing the vegetation under application is not likely to cause land degradation through salinity.

The application area is situated within a depression in the landscape therefore any surface water runoff is likely to be retained on site (DER, 2014). Given the identified soil type, any water retained on site is likely to drain swiftly and the risk of waterlogging causing land degradation is likely to be low (Commissioner of Soil and Land Conservation, 2014).

Advice received from the Commissioner of Soil and Land Conservation (2014) noted that:

- The risk of salinity causing land degradation is low.
- The risk of eutrophication causing land degradation is low.
- Given the soil type present and intended land use, the risk of wind erosion is low.
- The risk of water erosion causing land degradation is low.

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

Methodology References:
Commissioner of Soil and Land Conservation (2014)
DER (2014)

GIS Datasets:
- Hydrography linear
- Topographic contours

(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 application falls between the Gngara-Moore River State forest approximately three kilometres to the west of the application area and Moore River National Park approximately four kilometres to the east. The land between these reserves is predominantly cleared for agriculture.

Given the limited connectivity of the application within the landscape and adjoining land uses, it is not likely to be significant for the movement of fauna and is not likely to exacerbate the spread of weeds or dieback within the reserves.

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

Methodology GIS Datasets:
- DEC Tenure
- SacBiodataSets - accessed October 2014

(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**

Groundwater salinity is mapped as 500 - 1000 milligrams per litre. Given this clearing the vegetation under application is not likely to deteriorate the quality of groundwater.

The application area is situated within a depression in the landscape limiting surface water runoff (DER, 2014). No watercourses are mapped within the application area. Given this clearing the vegetation under application is not likely to deteriorate the quality of surface water.

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

Methodology References:
DER (2014)

GIS Databases:
- Groundwater Salinity Statewide
- Topographic Contours, Statewide

(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**

No watercourses or wetlands have been identified within the application area (DER, 2014).

The application area is situated within a depression in the landscape therefore any surface water runoff is likely to be retained on site (DER, 2014). Given the identified soil type, any water retained on site is likely to drain swiftly (Commissioner of Soil and Land Conservation, 2014).

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

Methodology GIS Datasets:
- DER (2014)
- Hydrography linear

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

Comments The applicant has advised that should the land be used for agricultural purposes, an amendment to the current planning approval will first be obtained.

The Department of Water (2014) has advised that although an existing groundwater licence exists on the property, further information from the applicant is required to determine if sufficient water is available. In an email dated 4 November 2014 the applicant provided further information on the water allocation and use across the property as well as justification as to why the proposal will not alter the farms water requirements.

The applicant has advised that the Department of the Environment deemed this proposal to be "not a controlled action". The applicant has also advised that between 2000 and 2004 significant plantings of eucalypts trees occurred on the property.

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

The application area is zoned "Rural" under the town planning scheme zone.

Methodology References:
Department of Water (2014)

4. References

- Commissioner of Soil and Land Conservation (2014) Advice received in relation to clearing permit application CPS 6134/1. Lot 4376 on Deposited Plan 16673, Wanerie. Received 18 August 2014 (DER Ref: A793433).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Environment and Conservation (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed July 2014.
- Department of Environment and Conservation (2012). Carnaby's cockatoo (*Calyptorhynchus latirostris*) Recovery Plan. Department of Environment and Conservation, Perth, Western Australia.
- Department of Environment Regulation (2014) Site Inspection Report for Clearing Permit Application CPS 6134/1. Lot 4376 on Deposited Plan 16673, Wanerie. Site inspection undertaken 19 6 2014. Department of Environment Regulation, Western Australia (DER Ref: A786941).
- Department of Parks and Wildlife (2014) Species and Communities advice received in relation to clearing permit application CPS 6134/1. Lot 4376 on Deposited Plan 16673, Wanerie. Received 3 November 2014 (DER Ref: A826758).
- Department of Water (2014) Advice received in relation to clearing permit application CPS 6134/1. Lot 4376 on Deposited Plan 16673, Wanerie (DER Ref: A7826295).
- 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.
- 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.
- Saunders, D.A. (1990). Problems of survival in an extensively cultivated landscape: the case of Carnaby's cockatoo *Calyptorhynchus funereus latirostris*. *Biological Conservation*. 54: 277-290
- Saunders, D.A. and Ingram, J.A. (1998). Twenty-eight years of monitoring a breeding population of Carnaby's cockatoo. *Pacific Conservation Biology*. 4: 261-270.
- 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 Gngangara Sustainability Strategy study area. Unpublished report to the Forests Products Commission. Available online: <http://ro.ecu.edu.au/ecuworks/6147>