



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5207/1
Permit Holder:	Ellenbrook Management Pty Ltd
Duration of Permit:	14 December 2012 – 14 December 2017

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

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of fire hazard reduction.

2. Land on which clearing is to be done

Lot 80 on Plan 21245 (Ellenbrook)

3. Area of Clearing

The Permit Holder must not clear more than 0.9995 hectares of native vegetation within the area hatched yellow on attached Plan 5207/1.

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*:

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

8. Offset – land acquisition

Prior to undertaking any clearing authorised under this permit, the Permit Holder shall make a monetary contribution, of a value to the CEO's satisfaction, into a fund maintained by the State of Western Australia for the purpose of establishing or maintaining Carnaby's cockatoo (*Calyptorhynchus latirostris*) foraging habitat prior to 22 February 2013.

PART III - RECORD KEEPING AND REPORTING

9. Records must be kept

In relation to condition 8 of this permit the Permit Holder must maintain a record of the date/s and amount of the monetary contribution, of a value to the CEO's satisfaction, that was transferred into a fund maintained by the State of Western Australia for the purpose of establishing or maintaining Carnaby's cockatoo (*Calyptorhynchus latirostris*) foraging habitat.

10. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 9 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.

- (b) Prior to 17 September 2017, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

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; and

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

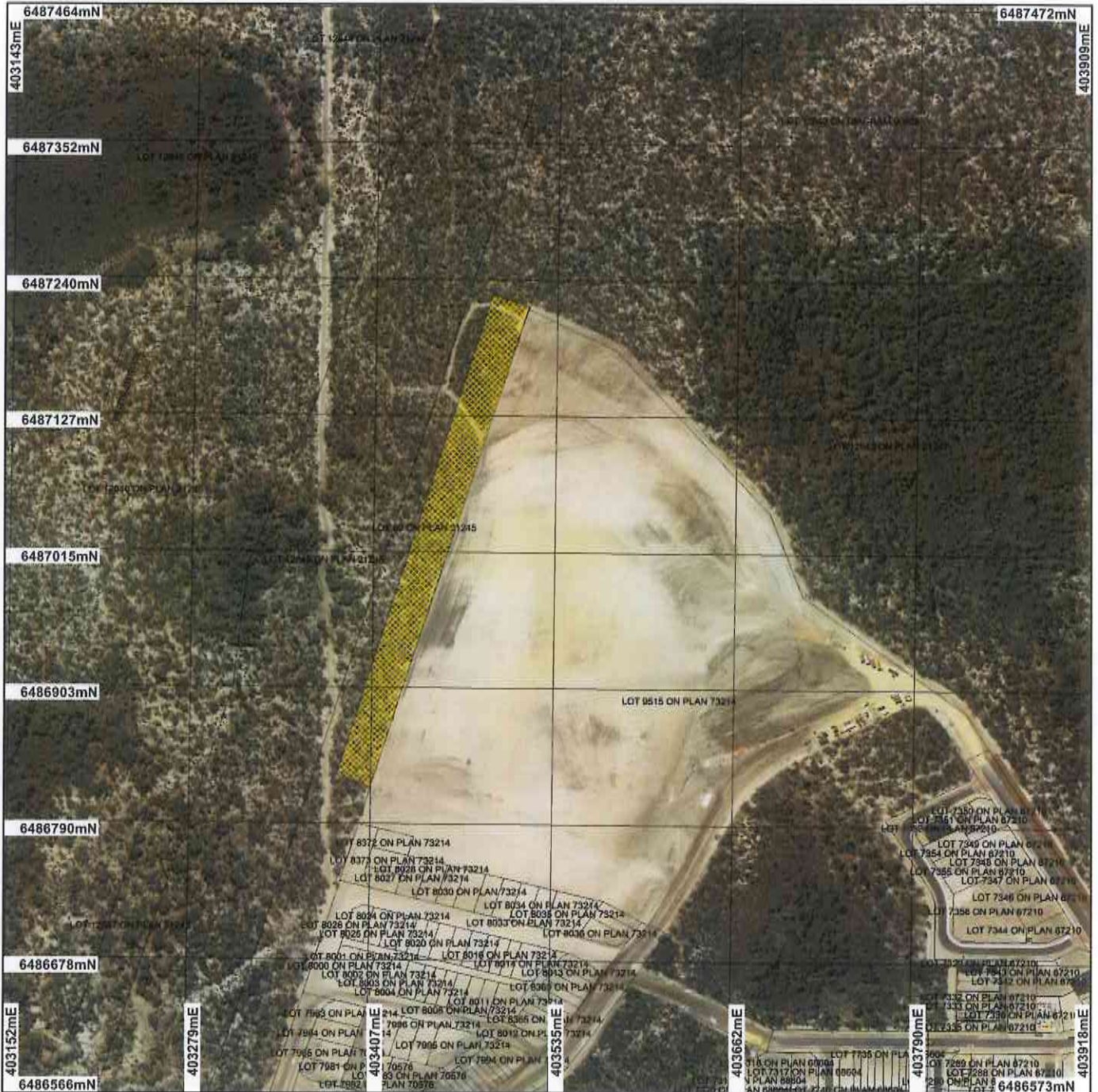


M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

22 November 2012

CPS 5207/1 - Plan



LEGEND

Cadastre

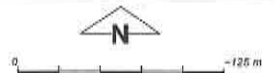
- Freehold
- Crown Reserve
- State Forest / Timber Reserve
- Marine Park
- Crown Lease (cont)

- Lease / Reserve
- Lease on State Forest / Timber Reserve
- Public Roads
- Unallocated Crown Land
- Water
- Road Centrelines

Perth Metropolitan Central 15cm Orthomosaic - Landgate 2011

Clearing Instruments

- Areas Approved to Clear



Scale 1:4302
(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.

Matt Warnock Date 22/11/12
Matt Warnock

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



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



1. Application details

1.1. Permit application details

Permit application No.: 5207/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Ellenbrook Management Pty Ltd

1.3. Property details

Property: LOT 80 ON PLAN 21245 (Lot No. 80 MARALLA ELLENBROOK 6069)
Local Government Area: City of Swan
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.9995		Mechanical Removal	Hazard reduction or fire control

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 November 2012

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
The vegetation under application has been mapped as Heddle Vegetation Bassandean Complex-North consisting of low open forest and low open woodland of Banksia species and Eucalyptus tottiana (Pricklybark) to low woodland of Melaleuca species and sedgelands which occupy the moister sites (Heddle, 1980).	This application proposes to clear 0.9995 hectares of native vegetation within Lot 80 on Plan 21245, Ellenbrook, for the purpose of creating a fire hazard separation zone for an abutting subdivision.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation was established through a site inspection (DEC, 2012).
Mapped Beard Vegetation Association 949 is described as low woodland of Banksia (Shepherd et al, 2001).	The vegetation under application ranges from a low woodland to a low open woodland consisting predominantly of Banksia sp. with scattered Macrozamia riedlei (Zamia Palm) and Nuytsia floribunda. Middle storey species include Acacia pulchella, Melaleuca sp. and Regelia sp over a diverse range of ground cover species (DEC, 2012).	To 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 at variance to this Principle

This application proposes to clear 0.9995 hectares of native vegetation within Lot 80 on Plan 21245, Ellenbrook, for the purpose of creating a fire hazard separation zone for an abutting subdivision. The vegetation ranges from excellent to completely degraded (Keighery, 1994) in condition (DEC, 2012), with the majority of the vegetation in an excellent condition.

The vegetation under application ranges from a low woodland to a low open woodland consisting predominantly of Banksia sp. with scattered Macrozamia riedlei and Nuytsia floribunda. Middle storey species include Acacia pulchella, Melaleuca sp. and Regelia sp. over a diverse understory (DEC, 2012). The density of the under storey decreases from north to south through the application area.

One priority flora species has been mapped within 1km of the proposed clearing. This species has a preference for claypans and winter wet flats whereas the application area contains leached sands on low dunes. The preferred habitat for this species is not found within the application area.

There are no priority ecological communities within the local area (10km radius).

The vegetation under application contains suitable foraging habitat for black cockatoo species, and is located approximately 4.9km from a mapped Carnaby's Cockatoo roost site. This species is classified as 'rare or likely to become extinct' under the Wildlife Conservation Act 1950. The vegetation under application may also provide habitat for ground dwelling indigenous fauna.

The local area (10km) surrounding the application has approximately 30 percent of its pre-European vegetation remaining.

Given the application area contains suitable foraging habitat for black cockatoos, is largely in excellent condition and lies within close proximity to a known roost site, the proposed clearing is at variance to this Principle.

To offset the impacts identified above the applicant has committed to the purchase of 6 hectares of remnant vegetation suitable as foraging habitat for Carnaby's cockatoo.

Methodology References:
-Keighery (1994)
-DEC (2012)

GIS Databases:
-SAC Bio datasets (accessed November 2012)
-NLWRA, Current Extent of Native Vegetation

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments **Proposal is at variance to this Principle**

Several conservation significant fauna have been recorded in the local area (10km radius) including, *Isodon obesulus* subsp. *fusciventer* (Quenda, Southern Brown Bandicoot), *Macropus irma* (Western Brush Wallaby), *Burhinus grallarius* (Bush Stone-curlew), *Falco peregrinus* (Peregrine Falcon), *Merops ornatus* (Rainbow Bee-eater), *Calyptorhynchus latirostris* (Carnaby's Cockatoo) and *Calyptorhynchus baudinii* (Baudin's Cockatoo) (DEC, 2007).

The vegetation under application consists of low *Banksia* woodland (DEC, 2012), which is likely to provide suitable foraging habitat for both the Carnaby's Cockatoo and Baudin's Cockatoo as these species have a significant portion of their diet made up of "seeds of hakeas, banksias, grevilleas and eucalypts" (Burbidge, 2004). These species are classified as 'rare or likely to become extinct' under the Wildlife Conservation Act 1950.

A mapped Carnaby's Cockatoo roost site occurs approximately 4.9km from the application area. Sufficient foraging habitat within a 6km to 12km radius of roost sites is necessary to successfully raise young (Commonwealth of Australia, 2012).

The vegetation under application is in excellent (Keighery, 1994) condition and the northern portion includes a dense understorey (DEC, 2012) that may provide suitable habitat for ground-dwelling indigenous fauna such as Quenda (*Isodon obesulus fusciventer*) and Western Brush Wallaby (*Macropus irma*).

Given the above, the proposed clearing is at variance to this Principle.

To offset the impacts identified above the applicant has committed to the purchase of 6 hectares of remnant vegetation suitable as foraging habitat for Carnaby's cockatoo.

Methodology References:
-Commonwealth of Australia (2012)
-DEC (2007)
-DEC (2012)
-Burbidge (2004)

GIS Databases:
-Carnaby's Cockatoo Roost Areas Confirmed

(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**

No species of rare flora have been mapped within 500m of the proposed clearing. No species of rare flora were observed in a site inspection of the application area.

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

Methodology GIS Databases:
-SAC Bio datasets (accessed November 2012)

(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

One threatened ecological community (TEC) has been mapped approximately 1.1km from the application area. A large subdivision separates this TEC from the application area and It is unlikely that the vegetation under application comprises, or is necessary for the maintenance of this TEC.

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

Methodology GIS Databases:
-SAC Bio datasets (accessed November 2012)

(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 (10km) surrounding the application has approximately 30 percent of its pre-European vegetation remaining.

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). However the area under application is located within the 'constrained area' of the Perth Metropolitan Region (EPA, 2006). Within this area the Environmental Protection Authority provides for the reduction of vegetation complexes to a minimum of 10 per cent pre- European extent (EPA, 2006).

Given that the vegetation under application is in excellent condition and may provide foraging habitat for black cockatoo's, the vegetation under application holds environmental value, however it is not considered to be a significant remnant in an area that has been extensively cleared.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent DEC Managed Lands (%)
IBRA Bioregion Swan Coastal Plain	1,501,209	587,833	39	35
Shire City of Swan	104,248	45,540	44	29
Beard Vegetation Association in Bioregion 949	209,983	121,248	58	52
Mattiske Vegetation Complex Bassendean complex-North	74,147	53,384	72	54

(Government of Western Australia (2011)

Methodology References:
-Government of Western Australia (2011)
-Commonwealth of Australia (2001)
-EPA (2006)

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 Proposal is not likely to be at variance to this Principle

There are four Conservation Category Semeniuk Damplands, which all occur within 200m of the application area. The closest of these is 140m east of the application area.

Given the distance of these wetlands to the application area, the vegetation under application is not likely to contain riparian vegetation, and therefore the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
-Geomorphic Wetlands, Swan Coastal Plain

(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 soil types within the application area consist predominantly of leached sands on the low dunes and small areas of other sand soils (Northcote, 1960-1968).

Given the small area of proposed clearing the risk of wind erosion causing land degradation is low. The risk of water erosion causing land degradation is also low due to the presence of sandy porous soils.

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

Methodology References:
-Northcote (1960-1968)

GIS Databases:
-Geomorphic Wetlands, Swan Coastal Plain
-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 **Proposal may be at variance to this Principle**

The application area is directly adjacent to an unnamed Nature Reserve and falls within the Maralla Road Bushland, Ellenbrook/Upper Swan, Bush Forever site 300. The disturbance resulting from the proposed clearing will increase the risk of weeds and dieback spreading into these conservation areas. Weed and dieback management practices will assist in mitigating this risk.

Given the above the proposed clearing may be at variance to this Principle.

Methodology GIS Databases:
-Bush Forever
-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**

There are four Conservation Category Semeniuk Damplands, which all occur within 200m of the application area. The closest of these is 140m east of the application area.

The groundwater salinity within the application area is 500 - 1000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be marginal. The removal of the 0.9995 hectares under application is not likely to increase the level of groundwater salinity.

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

Methodology GIS Databases:
-Geomorphic Wetlands, Swan Coastal Plain
-Soils, 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 likely to be at variance to this Principle**

Flooding is unlikely to be an issue given the size of the applied area, and topography on site.

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

Methodology GIS Databases:
-Topographic Contours, Statewide

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

Comments

The Department of Planning has advised that they object to the proposed clearing as it is inconsistent with the intent of the land under its zoning as Public Purpose-Special Uses under the Metropolitan Region Scheme. It is advised that sufficient planning consideration has not been given to Bush Forever Area 300, which is a regionally significant area of bushland and the fire hazard separation zone should be contained within Lot 80. It is advised that if a permit is granted an offset package be prepared prior to clearing and no other disturbance or clearing of native vegetation within Bush Forever Area 300 is to occur (Department of Planning, 2012).

To mitigate the environmental harm identified in this assessment, DEC has approved the applicant's offset package which comprises contributing funds towards the purchase of 6 hectares of remnant vegetation suitable as foraging habitat for Carnaby's cockatoo.

The applicant has reduced the proposed clearing area from 1.038 hectares to 0.9995 hectares.

Authority to access Lot 80 on Plan 21245 has been given by the Department of Environment and Conservation Swan Coastal District. The district has advised that they have no objection to the proposed clearing (DEC, 2012).

The application area falls within freehold land vested under the authority of the Department of Environment and Conservation (DEC). The vesting details associated with this Lot are currently undergoing a transfer to a different land manager as the Lot has been reserved to provide for a transit corridor associated with the unconstructed Perth Darwin National Highway.

A submission (2012) has been received which recommends alternative methods of managing the fuel load to minimise the effect on Banksia species within the application area. The submission advises that the proposed clearing may cause the water table to rise in nearby wetlands, resulting in increased salinity, and has the potential to introduce dieback into the north western side of Ellen Brook.

Given the small size of the proposed clearing, and the low salinity level (500 to 1000mg/L) of the local area (10km radius) the effects of clearing causing salinity are likely to be minimal. Weed and dieback management practices will assist in mitigating this risk of dieback spreading into the north western side of Ellen Brook.

The proposed clearing for a bushfire protection zone is required by the City of Swan for the future development of Lots that will be abutting the application area to the east (currently Lot 9515) as proposed under the modification of the Malvern Springs development stage of the Ellenbrook Project (City of Swan, 2012). The City of Swan supports the 25 metre fire break proposed under this application on the basis the dwellings within 100 metres of the 'hazard' are built to appropriate Australian Standards AS3959-2009.

Methodology

References:

- Department of Planning (2012)
- City of Swan (2012)
- DEC (2012)
- Submission (2012)

GIS Databases:

- Groundwater Salinity, Statewide
- Hydrography, Linear

4. References

- Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.
- City of Swan (2012) Additional Information for Clearing Permit Application CPS 5207/1 (DEC Ref A541897).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act Referral Guidelines for Three Threatened Black Cockatoo Species.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed September 2012.
- DEC (2012) Supporting Information for Clearing Permit Application CPS 5207/1. Department of Environment and Conservation (DEC Ref A535671).
- DEC (2012) Site Inspection Report for Clearing Permit Application 5207/1. Site Inspection undertaken 13/11/2012. Department of Environment and Conservation (DEC Ref A570932)
- Department of Planning (2012) Bush Forever advice for Clearing Permit Application CPS 5207/1. Department of Planning, Western Australia (DEC Ref: A551365).
- EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.

Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.

Heddle, 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.

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.

Submission (2012) Response to Application CPS 5207/1 to Clear Native Vegetation. DEC Ref: A5550251

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)