



1. Application details

1.1. Permit application details

Permit application No.: 3190/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: CLPS Pty Ltd

1.3. Property details

Property: LOT 38 ON PLAN 232800 (House No. 14674 SOUTH WESTERN PICTON EAST 6229)

Local Government Area: Shire Of Dardanup

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.2		Mechanical Removal	Building or Structure

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
Hedde Vegetation Complex:	The proposal is to clear up to 3.2 hectares of native vegetation for the purpose of cut and fill of the site for future development of industrial sheds.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing description based on DEC site visit conducted on 17 July 2009 (DEC 2009a).
GUILDFORD COMPLEX : A mixture of open forest to tall open forest of E. calophylla - E. wandoo - E. marginata and woodland of E. wandoo (with rare occurrences of E. lanepolei). Minor components include E. rudis - M. raphiophylla. (Hedde et al 1980).	The vegetation under application has been parkland cleared and comprises Eucalyptus marginata, Corymbia calophylla, Agonis flexuosa, Melaleuca preissiana, Xylomelum occidentale, Nuytsia floribunda and Banksia littoralis and an understorey of Melaleuca viminea and Xanthorrhoea brunonis, and introduced grasses and other weed species (DEC, 2009a).		
SOUTHERN RIVER COMPLEX : Open woodland of E. calophylla - E. marginata - Banksia species with fringing woodland of E. rudis - M. raphiophylla along creek beds. (Hedde et al 1980).			
Beard Vegetation Complex:	The vegetation on site ranged from degraded to good condition, with an overall average of degraded condition.		
968 ? Medium woodland; jarrah, marri & wandoo			
1000 - Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (Melaleuca spp.) (Shepherd 2007; SAC Blo datasets 13/07/2009).			

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 majority of the vegetation under application is parkland cleared and comprises *Eucalyptus marginata*, *Corymbia calophylla*, *Agonis flexuosa*, *Melaleuca preissiana*, *Xylomelum occidentale*, *Nuytsia floribunda* and *Banksia littoralis* over an understorey of *Melaleuca viminea* and *Xanthorrhoea brunonis*, grasses and other weed species; and is considered to be in degraded condition (Keighery, 1994; DEC, 2009a).

The northern-central, eastern and southern portions of the area under application are located within a mapped multiple use wetland covering a total area of approximately 11ha within Lot 38, with additional wetland vegetation observed in the north-west portion of the applied area. During the DEC site inspection (DEC, 2009a), wetland vegetation was also observed in the north-western portion of the applied area. Whilst the majority of the wetland vegetation on site is considered to be in degraded condition (Keighery, 1994), wetland vegetation observed in the southern portion of the applied area is considered to be in good condition (DEC, 2009) and may provide some foraging habitat for ground dwelling fauna species.

A spring flora and vegetation survey of Lot 38 conducted by Ekologica (2008) identified a total of 28 flora taxa (including 23 native species and 5 weed species). No rare flora or priority flora species were recorded within the applied area.

During the DEC site inspection (DEC, 2009a) tree hollows and possum dreys were observed within the large stand of trees and are likely to provide some habitat potential for a range of fauna species. The applied area falls within 'Area 3' of the EPBC Act Policy Statement 3.10 (DEWHA, 2008a) which is identified as supporting habitat for the Western Ringtail Possum (WRP). Dispersed trees in key connective corridors retain high ecological values for the WRP (DEWHA, 2008a and DEWHA, 2008b). DEC consider that due to the extent and degraded condition of the applied area, the proposal clearing is unlikely to have a significant impact upon conservation of threatened species in the area (DEC, 2009a and DEC, 2009b).

The northern and western portions of the vegetation under application, comprising of native vegetation in degraded condition, have been identified as forming part of a Regional Ecological Linkage within the local area (Greater Bunbury Regional Scheme; EPA, 2003). The South West Regional Ecological Linkages Project has advised that the area under application has been recognised as having very high proximity value to the identified ecological linkage within the Greater Bunbury Regional Scheme (Molloy, 2009).

Given the above the proposed clearing is unlikely to comprise a high level of biological diversity.

Methodology

References:

- DEC (2009a)
- DEC (2009b)
- DEWHA (2008a)
- DEWHA (2009)
- Ekologica (2008)
- EPA (2003)
- EPA (2008)
- Keighery (1994)
- Molloy (2009)

GIS Databases:

- SAC BIO datasets - accessed 13/07/2009

(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 may be at variance to this Principle

There are 12 fauna species of conservation significance which have been recorded within the local area (10km radius) including but not limited to the Endangered Carnaby's Black-Cockatoo (*Calyptorhynchus latirostris*) Baudin's Black-Cockatoo (*Calyptorhynchus baudinii*, VU), Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii*, VU), Western Ringtail Possum (*Pseudocheirus occidentalis*), Brush-tailed Phascogale (*Phascogale tapoatafa* ssp, VU), Chuditch (*Dasyurus geoffroi*, VU), Western Whipbird (*Psophodes nigrogularis nigrogularis*, EN), the closest being the Western Ringtail Possum which was recorded approximately 1km north of the applied area.

The vegetation under application is parkland cleared and is largely in a degraded condition overall, however, the grassy understorey and woody debris present may provide some habitat potential for ground dwelling fauna species (DEC, 2009a).

The area under application is located within the range of the Carnaby's Black-Cockatoo (*Calyptorhynchus latirostris*) (EPBC Act, Endangered). The vegetation under application includes some species which potentially could be utilised for foraging habitat. However, DEC (2009b) advice that the applied vegetation is not considered to be significant habitat for Carnaby's Black-Cockatoo nor Baudin's Black-Cockatoo and Forest

Red-tailed Cockatoo, given the proximity of conservation areas in the local area.

During the DEC site inspection (DEC, 2009a) tree hollows and possum dreys were observed within the large stand of trees and are likely to provide some habitat potential for a range of fauna species. The applied area falls within 'Area 3' of the EPBC Act Policy Statement 3.10 (DEWHA, 2008a) which is identified as supporting habitat for the Western Ringtail Possum (WRP). Dispersed trees in key connective corridors retain high ecological values for the WRP (DEWHA, 2008a and DEWHA, 2008b). Clearing of remnant habitat patches within 'Area 3' greater than 0.5 hectares in size, or clearing more than half of a remnant between 0.2 and 0.5 hectares, or clearing that will cause fragmentation of existing habitat linkages, is considered likely to have a significant detrimental impact on the WRP (DEWHA, 2009). DEC considers that due to the extent and degraded condition of the applied area, the proposal clearing is unlikely to have a significant impact upon conservation of threatened species in the area, including the WRP (DEC, 2009b).

Given the above, the vegetation under application is not considered likely to comprise part of an area that is necessary for the maintenance of, significant habitat for fauna indigenous to Western Australia.

Methodology **References:**
- DEC (2009a)
- DEC (2009b)
- DEWHA (2008)
- DEWHA (2009)
- EPA (2003)
- Molloy (2009)
GIS Databases:
- SAC Bio datasets accessed 13/07/2009

(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**
Within the local area (10km radius) there are 3 known occurrences of the rare flora species, all are found within a different vegetation complex and soil type to that found on site.

A flora survey conducted in October 2008 did not identify any rare flora or priority flora species within the area under application (Ekologica 2008).

Given the above it is not considered likely that the vegetation under application includes, or is necessary for the continued existence of, rare flora.

Methodology **References**
- Ekologica (2008)
GIS Databases:
- Bunbury 50cm Orthomosaic - Landgate 2006
- Hedde Vegetation Complexes
- Soils Statewide - DA 11/99
- SAC Bio datasets accessed 13/07//2009
- Western Australian Herbarium (1998)

(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 7 known occurrences of Threatened Ecological Communities (TEC) within the local area (10km radius) with the closest located approximately 2.6km east of the area under application.

A flora survey conducted by Ekologica (2008) did not identify any Threatened Ecological Communities (TEC) within the area under application.

Given the above it is not considered likely that the vegetation under application comprises, or is necessary for the maintenance of a TEC.

Methodology **References:**
- Ekologica (2008)
GIS Database:
- Bunbury 50cm Orthomosaic - Landgate 2006
- Hedde Vegetation Complexes
- Soils Statewide
- SAC Bio Datasets accessed 13/07//2009

(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 at variance to this Principle

The vegetation under application is parkland cleared and is largely in a degraded condition overall (DEC, 2009a).

Hedde et al. (1980) defines the vegetation under application as Southern River Complex and Guildford Complex of which there is 19.8% and 5.0% respectively of pre-European extent remaining (EPA 2006). The vegetation under application is also described as Beard vegetation associations 1000 and 968 of which there is 26.80% and 6.34% respectively of pre-European extent remaining (Shepherd 2007).

The area under application is located within the Shire of Dardanup, within which there is 48.57% of pre-European extent remaining.

The northern and western portions of the vegetation under application, comprising of native vegetation in degraded condition, have been identified as forming part of a Regional Ecological Linkage within the local area (Greater Bunbury Regional Scheme; EPA, 2003). The South West Regional Ecological Linkages Project has advised that the area under application has been recognised as having very high proximity value to the identified ecological linkage within the Greater Bunbury Regional Scheme (Molloy, 2009).

Given the condition of the vegetation under application and the extent of vegetation in the regional and local landscape, it is considered that the native vegetation under application is not a significant remnant in an area that has been extensively cleared.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Swan Coastal Plain^	1,501,208	583,140	38.84	
Shire of Dardanup**	52,843	25,663	48.57	
Hedde vegetation complex**				
Southern River Complex	57,979	11,501	19.80	1.50
Guildford Complex	92,407	4,662	5.0	0.20
Beard vegetation type*				
1000	94,175	25,216	25.80	16.40
968	136,188	8,637	6.34	14.70

* (Shepherd, 2007)

** (EPA, 2006)

^ Area within Intensive Land Use Zone

Methodology

References:

- EPA (2003)
- EPA (2006)
- Government of Western Australia (2000)
- Molloy (2009)
- Shepherd et al (2007)

GIS Databases:

- Bunbury 50cm Orthomosaic - Landgate 2006
- Pre-European Vegetation
- Hedde Vegetation Complexes

(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 at variance to this Principle

The northern-central, eastern and southern portions of the area under application are located within a mapped multiple use wetland covering a total area of approximately 11ha within Lot 38, with a further three multiple use wetlands located within 230 metres north of the applied area.

There is one Conservation Category Wetland and one Resource Enhancement Wetland located within approximately 1km northwest and 1km north of the applied area. In addition there are also numerous

Environmental Policy Protection (EPP) Lakes within the local area, the closest being situated approximately 2.1km north of the area under application.

The closest watercourses are a major drain which traverses the southeast corner of the area under application and the Collie River which is located approximately 2.2km west of the applied area.

A flora survey conducted by Ekologica (2008) identified 11 flora species within Lot 38, including *Melaleuca preissiana*, *M. raphiophylla*, *M. viminea*, *Lepidosperma longitudinale*, *Juncus pallidus*, *Dasypogon bromelifolius*, *Cotula coronopifolia*, *Patersonia occidentalis*, *Jacksonia furcellata*, *Astartea affinis* and *Loxocarya cinerea* which are generally found in association with damp depressions, swamps and along watercourses (Western Australian Herbarium 1998).

During the DEC site inspection *Melaleuca* species and *Lepidosperma longitudinale* were observed on site and are considered to be wetland dependant vegetation. In addition, the wetland vegetation observed within the southern portion of the applied area was considered to be in good condition (DEC 2009a).

Given the above it is considered that the applied vegetation is growing in or in association with, an environment associated with a watercourse or wetland.

Methodology

References:

- DEC (2009a)
- Ekologica Pty Ltd (2008)
- Western Australian Herbarium (1998)

GIS Databases:

- EPP, Lakes
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear_1
- Hydrography, linear (hierarchy)
- Bunbury 50cm Orthomosaic - Landgate 2006

(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 vegetation under application is parkland cleared and is largely in a degraded condition overall (DEC, 2009a).

The chief soils within the area under application are described as sandy yellow mottled soils, some of which contain ironstone gravel. Associated are acid yellow earths. Other soils contain ironstone gravel low dunes and some swamps with variable soils (Northcote et al. 1968) which have a low risk of salinity. The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water logging.

The northern-central, eastern and southern portions of the area under application; are located within a multiple-use palusplain wetland at an elevation of 15m AHD (Australian Height Datum) which indicates that the applied area is within a low lying area and at risk of water logging if the area is to be cleared.

During the DEC site inspection, the southern portion of the area under application was observed to be water logged (DEC, 2009a), however this area lays within a multiple- use wetland.

Given that the area under application is overall completely degraded (DEC, 2009a), it is considered unlikely that the proposed clearing will lead to appreciable land degradation.

Methodology

References:

- DEC (2009a)
- Northcote et al (1960-1968)

GIS Databases:

- Groundwater Salinity, Statewide
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide - DA 11/99

(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 three areas reserved for conservation purposes within a 10km radius of the area under application identified as Morangarel Nature Reserve and Leschenault Peninsular Conservation Park, with the closest of which is an Un-named Nature Reserve (id. 5935) located approximately 2.1km east of the applied area. There are also two System Six Reserves within the local area (10km radius); the closest being located approximately

2km north of the area under application.

The northern and western portions of the vegetation under application, comprising of native vegetation in degraded condition, have been identified as forming part of a Regional Ecological Linkage within the local area (Greater Bunbury Regional Scheme; EPA, 2003). The South West Regional Ecological Linkages Project has advised that the area under application has been recognised as having very high proximity value to the identified ecological linkage within the Greater Bunbury Regional Scheme (Molloy, 2009).

DEC Region advise that due to the extent and degraded condition of the applied area, the proposal clearing is unlikely to have a significant impact upon conservation of threatened species in the area (DEC, 2009a and DEC, 2009b).

Given the above it is considered that the proposed clearing is not likely to have an impact on the environmental values of adjacent or nearby conservation areas.

Methodology **References:**
- DEC (2009a)
- DEC (2009b)
- EPA (2003)
- EPA (2008)
- Molloy (2009)
GIS Databases:
- CALM Managed Lands and Waters
- CALM Regional Parks
- System Six Reserves

(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 may be at variance to this Principle

The area under application has a nil to low risk of salinity and is not located within a Public Drinking Water Source Area (PSWSA). Given that the clearing as proposed does not involve the deep excavation of the soils and given the limited size (3.2ha) and degraded condition of the vegetation under application, it is not considered likely that it would have an impact on salinity on or off site.

However, given the northern-central, southern and eastern portions of the proposed areas to be cleared are within a wetland and that the southern portion of the applied area was observed to be water logged during the DEC site inspection (DEC, 2009a); it is considered that the proposed clearing may cause a temporary deterioration in the quality of surface water through sedimentation.

Given the above, it is considered that the proposed clearing may be at variance to this Principle.

Methodology **References:**
- DEC (2009a)
GIS Databases:
- EPP, Lakes
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrography, linear (hierarchy) - DOW
- Public Drinking Source Areas (PDWAs) - DOW
- Salinity Mapping LM 25m - DOLA
- Soils, Statewide - DA 11/99

(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

The vegetation under application is parkland cleared and is largely in a degraded condition overall (DEC, 2009a).

The northern-central, southern and eastern portions of the under application are located within a multiple use wetland at an elevation of 15 AHD (Australian Height Datum) within a flat landscape.

Given the above it is considered that the clearing as proposed is not likely to exacerbate the incidence or intensity of flooding.

Methodology **References:**
- DEC (2009a)
GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC

- Hydrography, linear (hierarchy) - DOW
- Topographic Contours, Statewide - DOLA

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

Comments

Lot 38 South Western Highway, Picton is located within the Preston Industrial Park and is zoned Rural under the Greater Bunbury Regional Scheme (GBRS); and General Farming under the Shire of Dardanup's Town Planning Scheme No. 3 (TPS3).

Under the Preston Industrial Park (Northern Precinct) Structure Plan, Lot 38 South Western Highway, Picton is to be rezoned from Rural to Industrial. A Scheme Amendment normally takes up to 2 years to complete from initiation to adoption (Shire of Dardanup, 2009). The Shire of Dardanup advice that until Lot 38 is rezoned to Industrial, any future industrial-type use would need to be a Rural Industry, ie rural related, as defined under the Town Planning Scheme No. 3. The Shire of Dardanup further advises, that prior to industrial development of the property, a local structure plan along with rezoning to TPS3 and rezoning under the GBRS would be required for Lot 38.

The Shire previously issued Development Approval for landfill purposes for the southern portion of Lot 38 which is subject to the clearing permit CPS3005/1, but this Development Approval does not extend to the northern portion of Lot 38 and the current area under application (CPS 3190/1).

Although Lot 38 does not form part of the Conservation Area 'A' within the Preston Industrial Park, the properties located immediate to the north and west of Lot 38 are part of this conservation area. Conservation Area 'A' is the largest and most consolidated conservation area and has the highest priority conservation status in the Preston Industrial Park. The Environmental Protection Authority (EPA) recognises the significance of this and other conservation areas in the Preston Industrial Park and recommends their retention (EPA 2008). During the onsite evaluation of Conservation Area 'A,' fauna species of conservation significance were sighted within the properties located immediately to the north and west of Lot 38 - identified as the Endangered Carnaby's Black-Cockatoo and the Western Ringtail Possum; as well as the Forest Red-tailed Black-Cockatoo and Baudin's Black-Cockatoo (DEC, 2007).

A drain which traverses through the south-eastern portion of the area under application; is listed as an Aboriginal site of significance (id. 16713 - Collie River Waugal) which has been placed on the Interim Aboriginal Register.

A submission was received from Ashlee Rose (on behalf of the applicant) in response to correspondence from DEC dated 10 September 2009. Ms Rose stated that Lot 38 was not part of the Conservation Area A within the Preston Industrial Park and given the degraded condition of the vegetation on site, questioned the significance of the vegetation in providing Western Ringtail Possum habitat. Furthermore, Ms Rose stated that any temporary deterioration in the quality of surface water could be mitigated by management strategies and that since the Preston Industrial Park (Northern Precinct) Structure Plan has identified Lot 38 as proposed industry, questions the retention of wetland vegetation within an industrial area; and considers the proposed industrial sheds to be in line with industrial-type Rural Industry use which already exist in the local area. TRIM ref: DOC100230.

The Shire of Dardanup has advised that industrial sheds do not conform with Rural Industry under Town Planning Scheme No. 3 and that any industrial development would require rezoning and a structure plan. Development Approval is also required for the cut and fill of the site. TRIM Ref: DOC100547.

Methodology

References:

- EPA (2003)
- EPA (2008)
- Molloy (2009)
- Rose (2009)
- Shire of Dardanup (2009)

GIS Databases:

- Aboriginal Sites of Significance
- Town Planning Scheme Zones_1

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is at variance to Principle (f), may be at variance to Principle (i) and is not likely to be at variance to the remaining clearing Principles.

5. References

- Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.
- DEC (2009a) Site Inspection Report for Clearing Permit Application CPS 3190/1, Cut and Fill and Shed Construction. Site inspection undertaken 17/07/2009. Department of Environment and Conservation, Western Australia (TRIM Ref: DOC91119).
- DEC (2009b) Biodiversity advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, received 10/08/2009. Department of Environment and Conservation, Western Australia (TRIM Ref: DOC94873).
- DEC (2009c) Development Planning Guidelines For The Western Ringtail Possums In Busselton and Dunsborough. 04/02/2009 Version. Department of Environment and Conservation, Western Australia (TRIM Ref: DOC91784).
- DEWHA (2008a) EPBC Act Policy Statement 3.10 - Nationally Threatened Species and Ecological Communities. Significant impact guidelines for the vulnerable western ringtail possum (*Pseudocheirus occidentalis*) in the southern Swan Coastal Plain, Western Australia. Department of the Environment, Water, Heritage and the Arts.
- DEWHA (2008b) Background Paper to EPBC Act Policy Statement 3.10 - Nationally Threatened Species and Ecological Communities. Significant impact guidelines for the vulnerable western ringtail possum (*Pseudocheirus occidentalis*) in the southern Swan Coastal Plain, Western Australia. Department of the Environment, Water, Heritage and the Arts.
- DEWHA (2009) Significant impact guidelines for the vulnerable western ringtail possum (*Pseudocheirus occidentalis*) in the southern Swan Coastal Plain, Western Australia. Department of the Environment, Water, Heritage and the Arts.
- Ekologica Pty Ltd (2008) Report on a Spring for and vegetation survey of Lot 38 Picton. Prepared for Thompson McRobert Edgloe
- EPA (2003) Greater Bunbury Region Scheme. Bulletin 1108. Environmental Protection Authority, Western Australia.
- 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.
- EPA (2008) Advice on areas of conservation significance in the Preston Industrial Park. Advice of the Environmental Protection Authority to the Minister for the Environment under Section 16(e) of the Environmental Protection Act 1986. Bulletin 1282. Perth, Western Australia.
- 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.
- Molloy, S (2009) A Methodology For The South West Regional Ecological Linkages Project: Methodology Support Paper (Unpublished Report). Department of Environment and Conservation, Western Australia (TRIM Ref: DOC92836).
- 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.
- Rose, A (Thompson McRobert Edgloe) (2009) Letter of response to Department of Environment and Conservation (DEC) 30 day letter dated 10 September 2009. TRIM DOC100230.
- 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. (2007). Adapted from: 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Shire of Dardanup (2009) Submission, Direct Interest Submission, Shire of Dardanup (TRIM DOC91999).
- Submission, Shire of Dardanup, 8 October 2009, TRIM DOC100547.
- Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.calm.wa.gov.au/> Accessed on 13/07/2009.

6. 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)

