



1. Application details

1.1. Permit application details

Permit application No.: 4048/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: GHD Ltd Pty on behalf of CLPS Pty Ltd

1.3. Property details

Property: LOT 38 ON PLAN 232800 (House No. 14674 SOUTH WESTERN PICTON EAST 6229)
Local Government Area:
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Refuse
Decision Date: 17 February 2011

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 being composed of two Heddl vegetation complexes and two Beard vegetation associations. These include:	The proposal is to clear up to 7.93 hectares of native vegetation for the purpose establishing the site for future general industrial use (GHD, 2010).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The description and condition of the vegetation under application was determined via the use of aerial imagery, a DEC site inspection conducted in 2009, a flora and vegetation survey undertaken by Ekologica in 2008 and a site assessment undertaken by GHD in 2010.
GUILDFORD COMPLEX : A mixture of open forest to tall open forest of <i>E. calophylla</i> - <i>E. wandoo</i> - <i>E. marginata</i> and woodland of <i>E. wandoo</i> (with rare occurrences of <i>E. lane-poolei</i>). Minor components include <i>E. rudis</i> - <i>M. raphiophylla</i> . (Heddl et al 1980).	The vegetation under application is located in an area which has been mostly parkland cleared and comprises <i>Eucalyptus marginata</i> , <i>Corymbia calophylla</i> , <i>Agonis flexuosa</i> , <i>Melaleuca preissiana</i> , <i>Xylomelum occidentale</i> , <i>Nuytsia floribunda</i> and <i>Banksia littoralis</i> and an understorey of <i>Melaleuca viminea</i> and <i>Xanthorrhoea brunonis</i> , and introduced grasses and other weed species (DEC, 2009a).		
SOUTHERN RIVER COMPLEX : Open woodland of <i>E. calophylla</i> - <i>E. marginata</i> - <i>Banksia</i> species with fringing woodland of <i>E. rudis</i> - <i>M. raphiophylla</i> along creek beds. (Heddl et al 1980).	The vegetation on site ranged from degraded to good condition, with an overall average of degraded condition (GHD, 2010). The area is disturbed and predominately consists of scattered trees over pasture, weeds and some sedges with concentrated areas of trees (GHD, 2010).		
Beard 968 - Medium woodland; jarrah, marri & wandoo (Shepherd, 2009).			
Beard 1000 - Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (<i>Melaleuca</i> spp.) (Shepherd 2009).	A small section of the vegetation under application located in the north east corner, is considered to be in good (Keighery, 1994) condition (DEC, 2009a).		
		Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (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 vegetation under application is located in an area which has been mostly parkland cleared. The remaining vegetation 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 (Keighery, 1994) condition (DEC, 2009).

The entire northern section of Lot 38 is to be cleared and converted into industrial blocks with a drainage basin located amongst the blocks (GHD, 2010).

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. During the DEC site inspection (DEC, 2009), 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 (Keighery, 1994) condition, wetland vegetation observed in the southern portion of the applied area is considered to be in good (Keighery, 1994) 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, 2009) 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). Due to the extent and degraded (Keighery, 1994) condition of the applied area, the proposal clearing is unlikely to have a significant impact upon conservation of threatened species in the area (GHD, 2010).

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 (EPA, 2003). The South West Regional Ecological Linkages Project has identified the area under application as having very high proximity value to the identified ecological linkage within the Greater Bunbury Regional Scheme (Molloy, 2009). However given the mostly degraded (Keighery, 1994) condition of the vegetation under application (GHD, 2010), the values of the vegetation are likely to be reduced.

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

Methodology

DEC (2010)
DEWHA (2008a)
DEWHA (2008b)
EPA (2003)
Ekologica (2008)
GHD (2010)
Keighery (1994)
Molloy (2009)
GIS DataBases:
- SAC Biodatasets (accessed Nov 2010)

(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

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 geoffroyi*, 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 located in an area which has been mostly parkland cleared, however, the grassy understorey and woody debris present may provide some habitat potential for ground dwelling fauna species (DEC, 2009).

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, 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 (GHD, 2010).

During a DEC site inspection (DEC, 2009) tree hollows containing possum dreys were observed within the large stand of trees. In addition to providing Western ring-tailed possum (WRP) habitat, these trees 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 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.

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 (2009)
- DEWHA (2008)
- DEWHA (2009)
- EPA (2003)
- GHD (2010)
GIS Databases:
- SAC Biodatasets (accessed Nov 2010)

(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, and given that the vegetation under application is in mostly degraded (Keighery, 1994) condition (GHD, 2010), it is not considered likely that the vegetation under application includes, or is necessary for the continued existence of, rare flora.

Methodology References
- GHD (2010)
- Ekologica (2008)
GIS Databases:
- Bunbury 50cm Orthomosaic - Landgate 2006
- Heddle Vegetation Complexes
- Soils Statewide - DA 11/99
- SAC Biodatasets (accessed Nov 2010)

(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 and that the vegetation under application is in mostly degraded (Keighery, 1994) condition (GHD, 2010), it is not considered likely that the vegetation under application comprises, or is necessary for the maintenance of a TEC.

Methodology References
- GHD (2010)
- Ekologica (2008)
GIS Databases:
- Bunbury 50cm Orthomosaic - Landgate 2006

- Heddle Vegetation Complexes
- Soils Statewide - DA 11/99
- SAC Biodatasets (accessed Nov 2010)

(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 vegetation under application is parkland cleared and is located within an area which has been mostly parkland cleared and is considered to be in a predominately degraded (Keighery, 1994) condition (DEC, 2009).

The vegetation under application is also mapped as being composed of Southern River Complex and Guildford Complex, of which there is 19.8% and 5.0% respectively of pre-European extent remaining (Heddle, 1980). The vegetation under application is also described as Beard vegetation associations 1000 and 968 of which there is 27.21% and 7.23% of pre-European extent remaining within the bioregion respectively (Shepherd 2009).

The area under application is located within the Shire of Dardanup, within which there is 49.68% of pre-European level of native vegetaiton remaining (Shepherd, 2009).

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 (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 mostly degraded (Keighery, 1994) condition of the vegetation under application (GHD, 2010) 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.

Methodology

References:

- EPA (2003)
- GHD (2010)
- Heddle (1980)
- Molloy et al (2009)
- Shepherd et al (2009)

GIS Databases:

- Bunbury 50cm Orthomosaic - Landgate 2006
- Pre-European Vegetation
- Heddle 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 and eastern 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 and another located to the south.

There is one Conservation Category Wetland and one Resource Enhancement Wetland located approximately 1km northwest and 1km north of the applied area respectively. In addition to this, 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 Eckologica (2008) identified 11 flora species within Lot 38, including *Melaleuca preissiana*, *M. raphiophylla*, *M. viminea*, *Lepidosperma longitudinale*, *Juncus pallidus*, *Dasyogon bromeliifolius*, *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 (DEC, 2009).

Due to the presence of wetlands (and associated vegetation) within the applied area, the proposed clearing is considered to be at variance to principle (f); however given the degraded state of the vegetation within and surrounding the wetlands, the significance of this wetland vegetation is reduced.

- Methodology** **References:**
- DEC (2009)
 - 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 (Keighery, 1994) condition overall (DEC, 2009).

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.

Given that the vegetation under application is mostly in degraded (Keighery, 1994) condition (GHD, 2010) and is located adjacent to existing disturbed areas (DEC, 2009), it is considered unlikely that the proposed clearing will lead to appreciable land degradation.

- Methodology** **References:**
- DEC (2009)
 - GHD (2010)
 - 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 (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, 2009).

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 (2009)
 - EPA (2003)
 - EPA (2008)
 - Molloy (2009)
- GIS Databases:**

- DEC Tenure (2010)
- 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 (7.93ha) 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.

Due to the presence of wetlands within the applied area (DEC, 2009), there is the potential for short term impacts to surface water quality caused by increased sedimentation, therefore the proposed clearing may be at variance to principle (i), however, given that the proposed clearing does not involve the deep excavation of the soils, is relatively small in size (0.2ha) and the vegetation is in mostly degraded condition (GHD, 2010), it is unlikely that water quality (surface or underground) will be significantly impacted.

Methodology

References:

- DEC (2009a)
- GHD (2010)

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 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. However, the vegetation under application is situated in an area which has been parkland cleared and is largely in a degraded condition (DEC, 2009; GHD, 2010), therefore it is considered that the clearing as proposed is not likely to exacerbate the incidence or intensity of flooding.

Methodology

References:

- DEC (2009)
- GHD (2010)

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

Advice received from the Shire of Dardanup in relation to the current application (CPS 4048/1) has stated that Lot 38 will need to be re-zoned from 'General Farming' to 'Industrial' in order for the proposed land use to be compatible. No amendment application has been received by the Shire to rezone the property (Shire of Dardanup, 2010a). The Shire has advised that Lot 38 is zoned 'General Farming' under the TPS No.3 and the Greater Bunbury Region Scheme (Shire of Dardanup, 2010b). Two scheme amendments would be required and currently Lot 38 can only be used for uses allowed in the 'General Farming' zone (Shire of Dardanup, 2010b).

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 previous application for a clearing permit (CPS 3190/1) was refused. In relation to this application the Shire of Dardanup advised that the purpose of the clearing (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. (Shire of Dardanup, 2009).

In relation to CPS 3190/1, the Shire also advised that 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 advised 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 (Shire of Dardanup, 2009).

Supporting information submitted with the current application (CPS 4048/1) by GHD (2010), states that - Specifically, the northern 31 hectares of this lot requires a clearing permit for the proposed industrial development of which there is 7.93ha of vegetation to be cleared'.

Additional information was provided by the applicant dated 25 January 2011 which noted that a new District Structure Plan (DSP) is due to be lodged for the northern precinct of the Preston Industrial Park and following lodgement of the DSP, CLPS Pty Ltd intends to apply to rezone Lot 38 from 'general farming' to 'industry'.

DEC advised the applicant in letter dated 29 December 2010 that the Shire of Dardanup has reconfirmed their advice that the proposed land use is inconsistent with the zoning under the Dardanup Town Planning Scheme No. 3 and currently the only allowable land uses are those consistent with the 'General Farming' zone.

Therefore, DEC must have regard to any planning instrument, in accordance with section 51O (4) of the Environmental Protection Act 1986. As the purpose of the proposal (as outlined in the application and supporting information) is inconsistent with the Dardanup Town Planning Scheme No. 3, this is a matter the CEO must have regard for in accordance with S51O (4). This was also outlined in the previous decision to refuse a similar application for this property.

Methodology

References:

- GHD (2010)
 - Shire of Dardanup (2009)
 - Shire of Dardanup (2010a)
 - Shire of Dardanup (2010b)
- GIS Databases:
- Aboriginal Sites of Significance
 - Town Planning Scheme Zones_1

4. References

- DEC (2009) 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 (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.
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- Ekologica Pty Ltd (2008) Report on a Spring for and vegetation survey of Lot 38 Picton. Prepared for Thompson McRobert Edgeloe
- EPA (2003) Greater Bunbury Region Scheme. Bulletin 1108. 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.
- Shepherd, D.P. (2009) 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.
- Shire of Dardanup (2009), Advice on planning matters, TRIM DOC100547 & TRIM DOC 91999
- Shire of Dardanup (2010) Advice on planning matters (DEC Ref: A354813).
- Shire of Dardanup (2010b) Additional advice on planning matters (DEC Ref: A356824).
- 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.

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)