



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3952/1

File Number: 2010/006805-1

Duration of Permit: From 21 November 2010 to 21 November 2012

PERMIT HOLDER

Cape Mentelle Vineyards Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 10 on Diagram 95717, Rosa Glen

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.8 hectares of native vegetation within the area hatched yellow on attached Plan 3952/1.

CONDITIONS

1. Dieback and weed control

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

2. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the areas shall be inspected by a *fauna specialist* who shall identify *habitat tree(s)* suitable to be utilised as habitat by fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice 2010(2)*.
- (b) Prior to clearing, any *habitat tree(s)* identified by condition 2(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice 2010(2)*.
- (c) Within one week prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *fauna clearing person* to remove and relocate fauna identified under condition 2(b).

3. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to fauna management pursuant to condition 2 of this Permit:
- (i) the location of each habitat tree identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;

- (ii) the species name of fauna reasonably likely to utilise, or that have been observed utilising, the habitat tree(s); and
- (iii) the location and date where relocated fauna was released, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings.

4. 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 3 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 21 August 2012, the Permit Holder must provide to the CEO a written report of records required under condition 3 of this Permit where these records have not already been provided under condition 4(a) (reporting condition) 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;

fauna clearing person means a person who has obtained a licence from the Department, issued pursuant to the *Wildlife Conservation Regulations 1970* authorising them to take fauna;

fauna specialist means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

fill means material used to increase the ground level, or fill a hollow;

habitat tree(s) means trees that have a diameter, at average adult human chest height, of greater than 70cm, healthy but with dead limbs and broken crowns that are likely to contain hollows and roosts suitable for native fauna, or where these are not present then healthy but with the potential to contain hollows and roosts;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weed/s means 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*.



Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

21 October 2010

Plan 3952/1



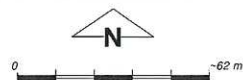
LEGEND

- Cadastre
- Local Government Authorities

Leeuwin 50cm Orthomosaic - Landgate 2004

Clearing Instruments

- Areas Approved to Clear



Scale 1:2380
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

Date 2/10/20

K. Faulkner
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.



1. Application details

1.1. Permit application details

Permit application No.: 3952/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Cape Mentelle Vineyards Ltd

1.3. Property details

Property: LOT 10 ON DIAGRAM 95717 (House No. 257 NOAKES ROSA GLEN 6285)
Local Government Area: Shire of Augusta-Margaret River
Colloquial name:

1.4. Application

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

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
Beard Vegetation Association: 3: Medium forest; jarrah-marri (Shepherd, 2009)	The proposal is to clear 0.8 hectares of native vegetation within Lot 10 on Diagram 95717, Rosa Glen for the purpose of constructing an additional storage dam for vineyard irrigation adjacent to the existing dam on the property. There is approximately 0.7ha of native vegetation within the area of the proposed dam site and this area is surrounded by a cleared track of at least 15m width. There is vineyard to the north of the applied area, the existing dam to the east and remnant vegetation on private property to the south and west.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994)	Vegetation condition was determined through aerial imagery and photographs supplied with the application (Cape Mentelle, 2010).
Mattiske Vegetation Complex: Treeton (T): Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla with some Allocasuarina fraseriana on mild slopes in the perhumid zone (Mattiske and Havel, 1998)	A narrow strip of vegetation, approximately 110m long and 5m wide is also proposed to be cleared to the south of the existing dam for the installation of a delivery pipe to feed the additional storage dam. The vegetation under application is likely to be impacted by regular disturbance and edge effects, such as minor weed invasion, due to the cleared track, close proximity to the vineyard and existing dam infrastructure. The vegetation under application largely comprises upland vegetation that has been historically logged. The vegetation is considered to be in very good (Keighery, 1994) condition.		

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 proposal is to clear up to 0.8 hectares (ha) of native vegetation adjacent to an existing dam within Lot 10 on Diagram 95717, Rosa Glen for the purpose of constructing a second storage dam for vineyard irrigation and installing a delivery pipe to it from the existing pumping station, approximately 110m to the east.

The application area is in close proximity to several large tracts of remnant vegetation, with an approximately 1500ha tract of unallocated crown land 550m west and an 8000ha timber reserve 2.5km to the east. Aerial imagery and GIS mapping indicate that the local area (10km radius) comprises approximately 50% native vegetation cover. The majority of this vegetation is held in DEC tenure, with Forest Grove, Blackwood River and Bramley National Parks, the Blackwood State Forest and timber reserves in the local area.

The vegetation under application may provide habitat for a range of indigenous fauna, including threatened black cockatoo species. Photographs supplied by the applicant indicate there is the possibility for potential fauna habitat trees to be present within the application area (Cape Mentelle, 2010).

The vegetation under application may also provide suitable habitat for priority flora species, with thirteen priority flora in the local area (10km radius) found within the same Beard (3) vegetation association (Shepherd, 2009) and soil type as the applied area.

Given that the proposed clearing is of a relatively small (0.8ha) area that is likely to be exposed to frequent disturbance and is in close proximity to significant tracts of secure vegetation, the vegetation under application is unlikely to be regionally significant as fauna or flora habitat and is unlikely to hold significant biodiversity values on local (10km) or regional scales.

Soil disturbance and removal of native vegetation increases the risk of weeds and pathogens, such as dieback (*Phytophthora cinnamomi*), being introduced or spread. The management of dieback is of particular importance as the proposed clearing is within a high (1100mm) rainfall area and is adjacent to high quality vegetation. Weed and dieback management conditions will minimise the risk of introduction or spread of pathogens and invasive species into the neighbouring vegetation.

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

Methodology

References:

References:

Cape Mentelle (2010)

Keighery (1994)

Shepherd (2009)

GIS Databases:

- DEC Managed Lands & Waters - DEC 28/10/09
- Evapotranspiration, Area Actual - BOM 30/09/01
- Groundwater Salinity, statewide - DoW 13/07/06
- Hydrogeographic Catchments, Catchments - DoW 01/06/07
- Hydrogeology, statewide - DoW 13/07/06
- Hydrography, linear - DoW 13/7/06
- Leeuwin 50cm Orthomosaic - Landgate 2004
- Rainfall, Mean Annual - BOM 30/09/01
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 13/09/10
- Soils, Statewide - 30/11/99

(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 numerous records of eight conservation significant fauna in the local area (10km radius).

As the vegetation under application is in very good (Keighery, 1994) condition, neighbours a relatively significant 10ha tract of remnant vegetation and is in close proximity to permanent water sources (being the existing dam and the nearby Upper Chapman Brook), it may provide suitable habitat for a range of indigenous fauna, including the state and federally listed Carnaby's black cockatoo, *Calyptorhynchus latirostris* (Endangered, *Wildlife Conservation Act 1950*; Endangered, *Environmental Protection and Biodiversity Conservation Act 1999*) and Forest Red-tailed black cockatoo, *Calyptorhynchus banksii naso*, (Vulnerable, *Wildlife Conservation Act 1950*; Vulnerable, *Environmental Protection and Biodiversity Conservation Act 1999*). Photographs supplied by the applicant (Cape Mentelle, 2010) indicate there is the possibility for potential habitat trees for these, and other, species to be present within the application area. A fauna management condition will mitigate potential impacts to fauna.

The White-bellied Frog, *Geocrinia alba*, (Critical, *Wildlife Conservation Act 1950*; Vulnerable, *Environmental Protection and Biodiversity Conservation Act 1999*) has been mapped approximately 800m southwest of the area under application. *G. alba* is found in lower tributaries of the Chapman Brook and there are 39 known records of it in the local area. However, as the vegetation under application is mostly upland vegetation and there is no indication of a tributary connecting the application area to the Chapman Brook system, it is considered unlikely that the proposed clearing would have appreciable impacts on this species.

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

Methodology

References:

Cape Mentelle (2010)

Keighery, 1994

GIS Databases:

- Leeuwin 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 13/09/10
- Soils, Statewide - 30/11/99

(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

There are two rare and fifteen priority flora species recorded in the local area (10km radius).

Single records of the rare flora *Reedia spathacaea* and *Drakaea micrantha* have been mapped 7.5km southeast and 9.5km north of the vegetation under application, respectively. While both species were found within the same Beard (3) vegetation association as the applied area (Shepherd, 2009), *D. micrantha* was recorded on a different soil type to the application area and *R. spathacaea* is known to occur in peaty sand in swamps and along river edges (Western Australian Herbarium, 1998-).

Considering the above, it is unlikely that the vegetation under application provides suitable habitat for either of these rare flora species and therefore the proposed clearing is not likely to be at variance with this Principle.

Methodology

References:

Western Australian Herbarium (1998-)

GIS Databases:

- Leeuwin 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 13/09/10
- Soils, Statewide - 30/11/99

(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 two records of the *Reedia spathacaea* - *Empodisma gracillimum* - *Sporadanthus rivularis* dominated floodplains and paluslopes of the Blackwood Plateau Priority 1 Ecological Community (PEC) in the local area. The closest mapped record of this PEC is 6.6km southeast of the application area, within the same Beard 3 (Shepherd, 2009) vegetation type. However, as the application area consists of upslope vegetation it is unlikely to support this community and is not likely to be at variance with this Principle.

Methodology

References:

Shepherd (2009)

GIS Databases:

- Leeuwin 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 13/09/10
- Soils, Statewide - 30/11/99

(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 application area is in close proximity to several large tracts of remnant vegetation, with an approximately 1500ha tract of unallocated crown land 550m west and an 8000ha timber reserve 2.5km to the east.

The vegetation under application is mapped as Beard Vegetation Association 3, which retains 69% of its pre-European extent in the Jarrah Forest IBRA bioregion, 79% of which is held in secure tenure (Shepherd, 2009).

The area is also mapped as being of the Treeton (T) Mattiske Vegetation Complex (Mattiske and Havel, 1998). The Treeton (T) complex retains approximately 50% of its pre-European extent, with 28% of the remaining vegetation held in DEC tenure (Shepherd, 2007).

Aerial imagery and GIS mapping indicate that the local area (10km radius) comprises approximately 50% native vegetation cover. The majority of this vegetation is held in DEC tenure, with Forest Grove, Blackwood River and Bramley National Parks, the Blackwood State Forest and timber reserves in the local area.

Given the above, the area proposed to be cleared is not considered to be significant as a remnant in an area that has been highly cleared and therefore the proposed clearing is not at variance with this Principle.

Methodology

References:

Mattiske and Havel (1998)

Shepherd (2007)

Shepherd (2009)

GIS Databases:

- Leeuwin 50cm Orthomosaic - Landgate 2004

- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 13/09/10

(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

The Upper Chapman Brook (major perennial watercourse) is located approximately 350m east of the area under application and flows in a southerly direction. Water is currently extracted from this system to fill the existing dam and irrigate the vineyard and will also be used to fill the proposed additional dam (Cape Mentelle, 2010). There is a gentle west to east downward gradient to the topography of the property, from approximately 62m to 25m (AHD) over the 350m from the application area to the watercourse. As the proposed clearing is on the western boundary of the property, with the existing dam and vineyard between the application area and the Upper Chapman Brook, the proposed clearing is unlikely to result in increased surface runoff or associated water quality issues impacting on the watercourse and is not at variance with this Principle.

Methodology

References:
Cape Mentelle (2010)
GIS Databases:
- ANCA, Wetlands - 26/03/99
- Hydrogeology, statewide - DoW 13/07/06
- Hydrography, linear - DoW 13/7/06
- Leeuwin 50cm Orthomosaic - Landgate 2004
- RAMSAR, Wetlands - 15/10/09

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal is not at variance to this Principle

The area under application has low risk of salinity and shallow gravelly soils on lateritic slopes with ironstone outcrops (Tille and Lantzke, 1990). This soil type has a low to moderate risk of water and wind erosion (Tille and Lantzke, 1990) and, as the purpose of the proposed clearing is to enable the construction of a dam, it is unlikely that the proposed clearing of 0.8ha of native vegetation would result in appreciable soil erosion or other land degradation impacts and is not at variance with this Principle.

Methodology

References:
Tille and Lantzke (1990)
GIS Databases:
- Acid Sulfate Soils Risk Map - DEC 06/09/06
- Evapotranspiration, Area Actual - BOM 30/09/01
- Groundwater Salinity, statewide - DoW 13/07/06
- Hydrogeology, statewide - DoW 13/07/06
- Rainfall, Mean Annual - BOM 30/09/01
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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 at variance to this Principle

There are a number of conservation reserves in the local area, with Forest Grove, Blackwood River and Bramley National Parks and the Blackwood State Forest within 10km of the application area. The closest conservation reserve is Forest Grove National Park, which is located approximately 5.6km to the south. There is also a large timber reserve of approximately 8000ha 2.5km to the east of the application area, however due to the considerable distance to these areas and the small scale (0.8ha) of the proposed clearing it is unlikely to have any impact on the conservation values of these areas.

The proposed clearing is not at variance with this Principle.

Methodology

GIS Databases:
- DEC Managed Lands & Waters - DEC 28/10/09
- Pre-European vegetation - DA 01/01
- Soils, Statewide - 30/11/99

(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 at variance to this Principle

The Upper Chapman Brook (major perennial watercourse) is located approximately 350m east of the area

under application and flows in a southerly direction. Water is currently extracted from this system to fill the existing dam and irrigate the vineyard and will also be used to fill the proposed additional dam (Cape Mentelle, 2010).

There is a gentle downward gradient to the east of the property, from approximately 62m to 25m (AHD) over the 350m from the application area to the watercourse. As the proposed clearing is on the western boundary of the property, with the existing dam and vineyard between the application area and the Upper Chapman Brook, the proposed clearing is unlikely to result in increased surface runoff or associated water quality issues impacting on the watercourse.

The application area is in a low salinity risk area and the proposed clearing is considered unlikely to result in a decline in groundwater quality.

Given the above, the proposed clearing is not at variance with this clearing Principle.

- Methodology** References:
Cape Mentelle (2010)
GIS Databases:
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments - DoW 29/06/06
- Hydrogeographic Catchments, Catchments - DoW 01/06/07
- Hydrogeology, statewide - DoW 13/07/06
- Public Drinking Water Source Areas (PDWSAs) - DoW 07/02/06
- Rainfall, Mean Annual - BOM 30/09/01
- RIWI Act, Areas - DoW 05/04/02
- RIWI Act, Groundwater Areas - DoW 13/07/06
- RIWI Act, Irrigation Districts - DoW 13/07/06
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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**
The area under application has shallow gravelly soils on lateritic slopes with ironstone outcrops (Tille and Lantzke, 1990). As this soil type has a nil or partial risk of waterlogging (Tille and Lantzke, 1990) and the purpose of the proposed clearing is to enable the construction of a dam, it is unlikely that the proposed clearing would cause or exacerbate the incidence or intensity of flooding and is not at variance with this Principle.

- Methodology** References:
Tille and Lantzke (1990)
GIS Databases:
- Evapotranspiration, Area Actual - BOM 30/09/01
- Hydrogeology, statewide - DoW 13/07/06
- Pre-European vegetation - DA 01/01
- Rainfall, Mean Annual - BOM 30/09/01
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

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

- Comments**
The proposed clearing is within the Blackwood Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914*. The Department of Water (DoW) advised that a Section 17 Permit to interfere with bed and banks is not required, as the dam is not going to interfere with a watercourse and that a 26D Application to construct or alter a well is not required because the proposed storage dam is going to be plastic lined (DoW, 2010).

The applicant has advised that water will be extracted from a bore and soak that is fed by the Upper Chapman Brook, to fill the dam and irrigate the vineyard, under Licence to Take Water: GWL109162(2) (Cape Mentelle, 2010). The DoW advised that the proponent holds two groundwater entitlements for the property and the proposed storage dam will be used to store water within their existing entitlement (DoW, 2010). The DoW confirmed that the soak adjacent to the Chapman Brook is considered to be groundwater because it is artificially raising water from below ground level (DoW, 2010). The extraction of water from the Upper Chapman Brook may alter the water level or water quality, which may impact on the White-bellied Frog (*Geocrinia alba*), downstream. The DoW has no objections to the proposed clearing (DoW, 2010).

The Shire of Augusta-Margaret River (the Shire) advised that 11% of the Treeton vegetation complex remains within conservation reserves and that, as the Commonwealth of Australia's JANIS target is for 15% of the pre-European distribution of each forest ecosystem to be protection within the formal reserve system on a regional basis, the remaining area of this vegetation complex requires protection on both private and public land (Shire

of Augusta-Margaret River, 2010). This is addressed in Principle (e), noting that Shepherd (2007) indicates that 28% of the current extent of the Treeton (T) Vegetation Complex is held in secure DEC tenure.

The southern portion of the application area includes vegetation that is part of a larger piece of remnant vegetation and a narrow strip of this is proposed to be cleared for installation of a delivery pipe to the dam. The Shire advised that efforts should be made to design the dam in such a way as to avoid clearing this southern strip of vegetation, as this area of vegetation appears to be well established and is part of a larger consolidated vegetation corridor (Shire of Augusta-Margaret River, 2010). The environmental significance of the vegetation under application is addressed in Principles (a) and (e).

The Shire encourages the areas surrounding the dam to be revegetated with native species appropriate to the soil types and site (Shire of Augusta-Margaret River, 2010). The proposed clearing has been assessed against the clearing principles and DEC has based the decision on this assessment.

The Shire also suggested that impacts to vegetation should be minimised by adhering to hygiene conditions to minimise the risk of introduction and spread of dieback or declared weeds (Shire of Augusta-Margaret River, 2010). This is addressed under Principle (a).

The Margaret River Town Planning Scheme No. 1 (*clause 5.20.2*) restricts clearing of vegetation without prior development approval and the Shire has advised that a planning approval for the proposed dam must be obtained from the Shire prior to clearing any vegetation on the property (Shire of Augusta-Margaret River, 2010). The applicant has advised that development approval from the Local Government Authority has not been applied for as yet. The applicant has been advised of its responsibility under Commonwealth, State and Local Government Legislation.

There are no known Aboriginal Sites of Significance within the area under application.

Methodology References:
Cape Mentelle (2010)
DoW (2010)
Shepherd (2007)
Shire of Augusta-Margaret River (2010)
GIS Databases:
- Aboriginal Sites of Significance - DIA 02/10
- Cadastre - Landgate 12/09
- RIWI Act, Areas - DoW 05/04/02
- RIWI Act, Groundwater Areas - DoW 13/07/06

4. References

- Cape Mentelle (2010) Clearing permit application - supporting information. Cape Mentelle Vineyards Ltd. DEC Ref: A329715, A332331
- DoW (2010) Rights in Water and Irrigation Act Advice - Blackwood Groundwater Area. Department of Water Southwest Region. DEC Ref: A335488, A340472
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Shepherd, D.P. (2007) Adapted from: Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- 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 Augusta-Margaret River (2010) Direct Interest Submission. Received 8/10/2010. DEC Ref: A338791
- Tille, P.J. and Lantzke, N.C. (1990) Busselton-Margaret River-Augusta land capability study. Land Resources Series No. 5. Western Australian Department of Agriculture. Accessed 20/09/10 Available through DAFWA NRM Maps (SLIP) <http://spatial.agric.wa.gov.au/slip/>
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. Accessed 20/09/10 Available from <http://florabase.dec.wa.gov.au/>

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)