



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3717/1
File Number: 2010/002621-1
Duration of Permit: From 29 August 2010 to 29 August 2015

PERMIT HOLDER

Kenneth Orr
Elizabeth Anne Orr

LAND ON WHICH CLEARING IS TO BE DONE

Lot 2547 on Deposited Plan 203042

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.04 hectares of native vegetation within the hatched yellow on attached Plan 3717/1.

CONDITIONS

1. Clearing authorised under this Permit must be completed by 29 August 2012, being two years from the date this Permit becomes valid.
2. Revegetation and rehabilitation
Within twelve months of clearing any area authorised under this Permit, the Permit Holder must *plant* 10 specimens of local riparian native plants within the area shaded red on attached Plan 3717/1, ensuring only *local provenance* seeds and propagating material are used.

Definitions

The following meanings are given to terms used in this Permit:

local provenance means native vegetation seeds and propagating material from natural sources within 10 kilometres of the area cleared.

plant/ed/ing means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

A handwritten signature in cursive script, appearing to read "Matthew Warnock", written over a horizontal line.

Matthew Warnock
ACTING MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

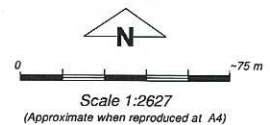
29 July 2010

Plan 3717/1



LEGEND

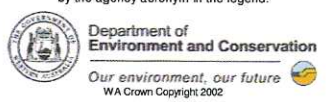
- | | |
|--|--|
| Clearing Instruments | Cadastre for labelling |
| <ul style="list-style-type: none"> Areas Applied to Clear Areas Subject to Conditions Areas Approved to Clear Road Centrelines | <ul style="list-style-type: none"> Local Government Authorities Busselton 50cm Orthomosaic - Landgate 2007 |



Geocentric Datum Australia 1994
 Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date *29/7/10*

M Warnock
 Officer with delegated authority under Section 20 of the Environmental Protection Act 1986
 Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



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



1. Application details

1.1. Permit application details

Permit application No.: 3717/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Kenneth and Elizabeth Anne Orr

1.3. Property details

Property: LOT 2547 ON PLAN 203042 (House No. 276 ROY METRICUP 6280)
LOT 2547 ON PLAN 203042 (House No. 276 ROY METRICUP 6280)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.04		Mechanical Removal	Fence Line 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
<p>Bear vegetation Associations:</p> <p>1000 - Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (<i>Melaleuca</i> spp.)</p> <p>1181 - Medium woodland, jarrah & <i>Eucalyptus haematoxylon</i> (Whicher Range) (Shepherd, 2007)</p> <p>Mattiske Vegetation Complexes:</p> <p>Yd - Woodland of <i>Allocasuarina fraseriana</i>-<i>Eucalyptus marginata</i> subsp. <i>marginata</i>-<i>Xylomelum occidentale</i>-<i>Banksia attenuata</i> on sandy slopes in the humid zone.</p> <p>Yw - Woodland of <i>Allocasuarina fraseriana</i>-<i>Nuytsia floribunda</i>-<i>Agonis flexuosa</i>-<i>Banksia attenuata</i> on slopes and open forest of <i>Corymbia calophylla</i>-<i>Eucalyptus patens</i>-<i>Eucalyptus marginata</i> subsp. <i>marginata</i> on the lower slopes and woodland of <i>Eucalyptus rudis</i>-<i>Melaleuca raphiophylla</i> on valley floors in the humid zone.</p> <p>Aw - Mosaic of tall shrubland of <i>Melaleuca viminea</i> and woodland of <i>Eucalyptus rudis</i>-<i>Melaleuca raphiophylla</i> with occasional <i>Corymbia calophylla</i> on broad depr</p> <p>(Mattiske, 1998)</p>	<p>The application area is broken up into three sites. Site 1 is the northern portion of the application area. This portion consists of approximately 3 quarters of the vegetation under application. The vegetation is considered to be in good to very good (Keighery, 1994) condition.</p> <p>Site 2 is the middle section of the application area consisting of the proposed stock crossing. The vegetation contained within this area of the application is considered to be in good to very good (Keighery, 1994) condition.</p> <p>Site 3 is the southern section of the application area and contains vegetation considered to be in a degraded (Keighery, 1994) condition.</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p> <p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery</p>	<p>The vegetation condition was assessed through aerial photography and a site visit (DEC, 2010).</p> <p>As above</p>
As above	As above	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery	As above

As above

As above

1994)

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)

As above

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 may be at variance to this Principle**

The area under application consists of 0.04 hectares of vegetation in degraded to very good (Keighery, 1994) condition.

The application area is broken up into three sites. Site 1 is the northern portion of the application area. This portion consists of approximately 3 quarters of the vegetation under application. The vegetation is considered to be in a predominately good to very good (Keighery, 1994) condition. The dominant native vegetation at this site is *Taxandria lineariflora* closed tall scrub, over *Astartea fascicularis* open heath, over *Baumea vaginalis*, *Taraxis grossa*, *Leptocarpus* sp. sedge/land with emergent *Lepidosperma tetraquetrum*, over *Microlaena stipoides* grassland. Weeds noted within the vegetation included scattered *Acacia longifolia*, the perennial grass species *Pennisetum clandestinum*, *Axonopus fissifolius*, *Paspalum distichum* and *P. dilatatum* and the sedge species *Isolepis prolifera*. Debris washed against the base of vegetation within this site indicates that in places the proposed fence line may be within the winter floodplain of the Carburnup River (DEC, 2010a). The application has been amended in the north eastern section to realign the fence which will minimise the impact on vegetation in very good (Keighery, 1994) condition.

Site 2 is the middle section of the application area consisting of the proposed stock crossing. The vegetation contained within this area of the application is considered to be in good to very good (Keighery, 1994) condition. At Site 2 the dominant vegetation at this site is comparable to Site 1, but the Priority 4 (P4) listed species *Tyrbastes glaucescens* replaces *Taraxis grossa* and *Lepidosperma tetraquetrum* as a dominant sedge species (DEC, 2010a). The P4 species extends some distance into the creekline vegetation either side of the proposed cattle crossing (DEC, 2010a).

Site 3 is the southern section of the application area and contains vegetation considered to be in a degraded (Keighery, 1994) condition. This area is a degraded form of the Site 1 plant community. Overstorey shrubs remain but the native sedges and grasses are generally replaced by introduced perennial grasses (DEC, 2010a).

There are two declared threatened and one priority fauna species recorded within the local area (5km radius) of the area under application. There are also eight species of rare flora and seventeen species of priority flora within the local area. Of these species, possible Western Ringtail Possum dreys and quenda diggings were observed during a site inspection (DEC, 2010a).

The Priority 1 listed Ecological Community (PEC) (WHSFCT_G1, Creekline Blackbutt and Marri forest) (DEC 2010b) is known from one survey quadrat within the Carburnup River further south into the Whicher Scarp. The lack of multiple survey quadrats within this PEC makes it difficult to fully define the extent and floristic relationships of this community with others of the Carburnup River. Species recorded by the application inspection indicates that the PEC listed above may extend south of Roy Road into the northern extent of the clearing application area (DEC, 2010a).

The floristic surveys of the Whicher Scarp (Keighery et.al. 2008) and the Busselton Plain (Webb et.al. 2009) noted that the vegetation of the Carburnup River and other foothill wetlands support a suite of species associated with permanent/near-permanent moisture that are disjunct or at range end in these localities (ie: they are significant species as defined under EPA (2006)). Two such significant species were noted by the site visit being *Taraxis grossa* and *Tyrbastes glaucescens*. With the exception of the *Tyrbastes* that has a disjunct population near Collie, both these species have their northern range end on the Swan Coastal plain in the Carburnup River at the Carburnup townsite (approx 5km north of the clearing application) (DEC, 2010a).

Although the proposed clearing of native vegetation is small 0.04ha it consists of priority flora species, a priority ecological community as well as riparian vegetation. A realignment of the north eastern portion of the application was confirmed by the applicant which alleviates the impacts on biodiversity within an area that contains highly cleared vegetation complexes.

Given the amendment and realignment of the fence line the proposal is now may be at variance to this principle as priority flora species may be impacted by clearing within the stock crossing.

Methodology

References:
DEC 2010a
DEC 2010b
EPA 2006
Keighery 1994

Keighery 2008
Webb et al. (2009)
GIS Database:
- SAC Bio datasets access on 03/06/2010
- Pre European Vegetation - DA 01/01
- Matiske Vegetation (01/03/1998)

(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 two declared threatened and one priority fauna species recorded within the local area (5km radius) of the area under application. The closest record is an *Engaewa reducta* (Dunsborough Burrowing Crayfish) 60m north of the area under application. *Engaewa reducta* inhabit sandy or loamy soil in heathlands. Given the lack of preferred habitat the area under application is unlikely to be significant habitat for the listed threatened species *Engaewa reducta*.

There is one record of the *Pseudocheirus occidentalis* (Western Ringtail Possum) 2km west and *Isodon obesulus fusciventer* (Quenda) 1.5km west of the area under application. The presence of both these species were noted on the property, in the form of Quenda diggings and possum dreys (DEC, 2010a).

The application is to fence off the majority of the riparian vegetation remaining on the property from grazing pressures. The application was amended to realign the fenceline reducing impacts on vegetation in a good to very good (Keighery, 1994) condition that may comprise of significant habitat for these species.

Given this amendment the proposed clearing is now not likely to be at variance to this principle.

Methodology References:
Keighery 1994
DEC 2010a
GIS Database:
- SAC Bio datasets access on 03/06/2010
- Hydrography, linear - DOE 01/02/04

(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 eight species of rare flora within the local area (10km radius). Four species of rare flora occurs within the same soil type (Mt7) but different vegetation type and two species fall within the same Beard Vegetation Association (1181) but different soil type as the area under application.

Given the above it is unlikely that the application area is necessary for continued in situ existence of rare flora species.

Methodology GIS Database:
- SAC Bio datasets access on 03/06/2010
- Pre-European Vegetation - DA 01/01
- Declared Rare and Priority Flora List - CALM 13/08/03
- Matiske Vegetation - CALM 24/03/98
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Soils, Statewide - DA 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 no known records of threatened ecological communities within the local area (5km radius).

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

Methodology GIS Database:
- SAC Bio datasets access on 03/06/2010
- Pre-European Vegetation - DA 01/01
- Soils, Statewide - DA 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 may be at variance to this Principle			
	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions*				
Swan Coastal Plain (SWA)^	1,501,208	583,140	38.84	24.21
Shire*				
Busselton	146,450	61,734	42.15	17.58
Mattiske Vegetation Complex**				
Abba (Aw)	9094	478	5.26	0.24
Yelverton (Yd)	1768	1024	57.91	0.21
Yelverton (Yw)	3841	926	24.13	0.67
Beard Vegetation Association with Bioregion*				
1000	94,175	25,235	26.8	6.48
1181	9238	3761	40.72	0.46

* (Shepherd et al. 2007)

** (Mattiske 1998)

^ Area within Intensive Land Use Zone

There is approximately 25-30% of native vegetation left within the local area (5km radius) of the area under application.

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).

The proposed clearing will impact mostly on vegetation of the Yelverton (Yw) vegetation complexes but potentially also the Abba (Aw) vegetation complex (Mattiske 1998). As shown below both these complexes are below Nationally recommended and state adopted levels of retention and reservation,

* Abba (all the sub-complexes together) ~6% of the pre-European extent remains uncleared (EPA 2006)

* Yelverton (Yw) - ~25% of the pre-European extent remains uncleared(DEC 2007)

Given the low representation of the above vegetation complexes the proposal maybe at variance to this principle. However, the application has been amended to realign the north eastern fenceline. The proposal now goes through vegetation which does not represent the values of the above vegetation types.

Methodology	Commonwealth of Australia (2001) DEC (2007) DEC (2010) EPA (2006) Mattiske (1998) Shepherd (2007) GIS Database: - Hedde Vegetation Complexes - DEP 22/06/95 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00 - Local Government Authorities - DLI 8/07/04 - Mattiske Vegetation - CALM 1/03/1998 - Pre European Vegetation - DA 01/01 - SAC Bio datasets access on 03/06/2010 - NLWRA, Current Extent of Native Vegetation 20 Jan 2001
--------------------	---

(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 area under application is within the riparian vegetation of the Carburnup River. The southern end of Site 1 on the western side of the bank comes within 3-4 metres of the river bank.
-----------------	--

Site 3 (most southern portion) contains vegetation which is in a degraded (Keighery, 1994) condition and for most parts does not contain riparian or any other vegetation.

The stock crossing between sites 2 and 3 may contain the priority 4 flora species *Tyrbastes glaucescens*. This species is located on either side of the creekline (DEC, 2010a).

The Priority 1 listed Ecological Community (PEC) (WHSFCT_G1, Creekline Blackbutt and Marri forest) (DEC 2010b) is known from one survey quadrat within the Carburnup River further south into the Whicher Scarp. The lack of multiple survey quadrats within this PEC makes it difficult to fully define the extent and floristic relationships of this community with others of the Carburnup River, but from aerial interpretations and species noted from the Roy Road road reserve it appears as though this PEC is within the extensive area of wetland vegetation to the north of Roy Road. Species recorded by the application inspection indicates that the PEC would also extend south of Roy Road into the northern extent of the clearing application area (extent indicated on the attached map) (DEC, 2010a).

The northern section of the application area (within Site 1) is a part of a Conservation Category Wetland (Floodplain). The CCW extends north of the property. CCW's support a high level of attributes and functions and are the highest priority for protection. CCW's are considered 'critical assets' which represent the most important environmental assets in the State that must be fully protected and conserved for (EPA, 2006). A buffer of no less than 50m to a wetland is recommended to limit hydrological impact and potential sedimentation issues (DEC, 2008).

The applicant has amended the proposal to realign the fenceline through a degraded portion of vegetation in the north eastern part of Site 1.

Given the proposal contain riparian vegetation the application is at variance to this principle.

Methodology References:
DEC 2008
DEC 2010a
DEC 2010b
EPA 2006
Keighery 1994
GIS Database:
- ANCA wetlands - Environment Australia 26/3/99
- EPP Lakes Policy Area - DEP 14/05/97
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrography linear - DOW 13/7/06

(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 application is for the fencing of the riparian vegetation to keep stock from accessing the Carburnup River and the creation of a new stock crossing in the southern section of the property (between sites 2 and 3).

The mapped soil type is Mt7 - chief soils are acid Fey earths often in fairly intimate association with leached sands that have a clay D horizon at depths of 3-8 ft.

There is only a slight slope on the applied area, sloping into the creekline. Given the low relief on site, the small amount of proposed clearing to be undertaken and type of soil on site it is unlikely that water erosion or waterlogging will be a risk.

DEC (2010) has advised that the old stock crossing should be revegetated. A condition will be placed on the permit to this effect.

Therefore the proposed clearing is unlikely to be at variance to this principle.

Methodology GIS Database:
- Average Annual Rainfall Isohyets - WRC 29/09/98
- Annual Evaporation Contours (Isopleths) - WRC 29/09/98
- Hydrogeology, statewide - DOW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide DA 11/99
- Topographic contours statewide - DOLA and ARMY 12/09/02
- Hydrogeology, Statewide 05 Feb 2002
- 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 may be at variance to this Principle

There are no conservation areas within the local area (5km radius) of the application area.

The northern section of the application area (within Site 1) is a part of a Conservation Category Wetland (Floodplain). The CCW extends north of the property. CCW's support a high level of attributes and functions and are the highest priority for protection. CCW's are considered 'critical assets' which represent the most important environmental assets in the State that must be fully protected and conserved for (EPA, 2006). A buffer of no less than 50m to a wetland is recommended to limit hydrological impact and potential sedimentation issues (DEC, 2008).

The applicant has amended the proposal to realign the fenceline through a degraded portion of vegetation in the north eastern part of Site 1.

Given the above the proposed clearing maybe at variance to this principle.

Methodology References:

EPA 2006

DEC 2008

Keighery 1994

GIS Database:

- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

- CALM Managed Lands and Waters - CALM 1/06/04

(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 application area falls within the Rights in Water Irrigation Busselton - Capel Groundwater Area.

The area under application is mapped with a low groundwater salinity of <500mg/L and no salinity risk. The mapped soil type is Mt7. The mapped soil type is Mt7 - chief soils are acid Fey earths often in fairly intimate association with leached sands that have a clay D horizon at depths of 3-8 ft.

The proposed stock crossing may cause sedimentation and erosion of the bed and banks of the Carburnup River. There is a current stock crossing located within Site 1 of the application area, however it is too bogging for stock to cross. To mitigate the impact of clearing for a new stock crossing revegetation of the current stock crossing should be a condition on a clearing permit if granted.

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

Methodology DEC 2009

GIS database:

- Albany 1.4m Orthomosaic - DLI March 03

- Evapotranspiration Isopleths - WRC 29/09/98

- Groundwater Salinity Statewide DoW 13/07/06

- Hydrography, linear - DOW 13/7/06

- Soils, Statewide DA 11/99

- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05

- Salinity Risk LM 25m - DOLA 00

- 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 likely to be at variance to this Principle

The mapped soil types are Mt7. Given the free draining soils and topography the proposed clearing is unlikely to be at variance to this principle.

Methodology GIS database:

- Albany 1.4m Orthomosaic - DLI March 03

- Evapotranspiration Isopleths - WRC 29/09/98

- Hydrography, linear - DOW 13/7/06

- Soils, Statewide DA 11/99

- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05

- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The Shire of Busselton has advised that a stock crossing would require development approval. A development application has been received by the shire from the applicant (Shire of Busselton, 2010).

The area is zoned for general farming and cadastre is freehold.

The application falls within the Rights in Water Irrigation Busselton - Capel Groundwater Area. The Department of Water have advised that a Bed and Banks licence is not required for this area (DoW, 2010).

Methodology

DoW (2010)

Shire of Busselton (2010)

GIS database:

- Cadastre - Landgate Dec 07

- Town Planning Scheme Zones - MFP 31/08/98

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2007). Ecological Criteria for use in determining Regionally or Locally Significant Natural areas in the South West NRM Region within the Swan Coastal Plain, Jarrah Forest and Warren IBRA Bioregions. Department of Environment and Conservation unpublished report for the South West Biodiversity Project.
- DEC (2008) Memo re Standard Wetlands Advice for Native Vegetation Conservation Branch. Dated 17/07/2008. Species and Communities Branch, Department of Environment and Conservation, Western Australia.
- DEC (2010a) Site Inspection Report for Clearing Permit Application CPS 3717/1, Lot 2547, Roy Road Metricup. Site inspection undertaken 27/05/2010. Department of Environment and Conservation, Western Australia (DEC Ref: A309130).
- DEC (2010b) Priority ecological communities list (May 2010). DEC Species & Communities Branch. Available at: www.dec.wa.gov.au/management-and-protection/threatened-species/wa-s-threatened-ecological-communities.html
- DoW (2010). Advice received from the Department of Water. DEC Ref: A309135.
- EPA (2006) Guidance for the assessment of environmental factors - Guidance No 10. Level of assessment for proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Environmental Protection Authority, Perth, Western Australia.
- Keighery BJ, Keighery GJ, Webb A, Longman VM and Griffin EA (2008) A Floristic Survey of the Whicher Scarp. A report for the Department of Environment and Conservation (Western Australia) as part of the Swan Bioplan Project.
- 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.
- 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. (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.
- Shire of Busselton (2010). Advice received from the Shire of Busselton. DEC Ref: A309137 and A306342.
- Webb et al (2009). Webb A, Keighery B, Keighery G, Longman V, Black A, and O'Connor A. 2009 The Flora and Vegetation of the Busselton Plain (Swan Coastal Plain). A report for the Department of Environment and Conservation (Western Australia) as part of the Swan Bioplan Project.

5. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management (now DEC)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment (now DEC)
DoW	Department of Water
DMP	Department of Mines and Petroleum (ex DoIR)
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)