



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 2787/1

File Number: DEC9534

Duration of Permit: From 24 October 2009 to 24 October 2011

PERMIT HOLDER

Muscle Matrix (WA) Pty Ltd & Grey Gold (WA) Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 39 on Plan 17506 (House No. 56 HOY COONABIDGEE 6503)

AUTHORISED ACTIVITY

Clearing of up to 2.17 hectares of native vegetation within the area hatched yellow on attached Plan 2787/1.

CONDITIONS

1. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* who shall identify habitat suitable to be utilised by Quenda (*Isoodon obesulus fusciventer*).
- (b) Prior to clearing, any habitat identified by condition 1(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in condition 1(a).
- (c) Prior to clearing, the Permit Holder shall ensure that any fauna identified by condition 1(b) shall be removed and relocated by a *fauna clearing person*, in accordance with a licence issued by the Department.

2. Records must be kept

The Permit Holder must maintain the following records in relation to fauna management pursuant to condition 1 of this Permit:

- (a) the location of each Quenda (*Isoodon obesulus fusciventer*) recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
- (b) the location and date where Quenda (*Isoodon obesulus fusciventer*) 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.

3. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 2 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.

- (b) Prior to 24 July 2011, the permit holder must provide to the CEO a written report of records required under condition 2 of this Permit where these records have not already been provided under condition 3(a) of this Permit.

Definitions

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

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;

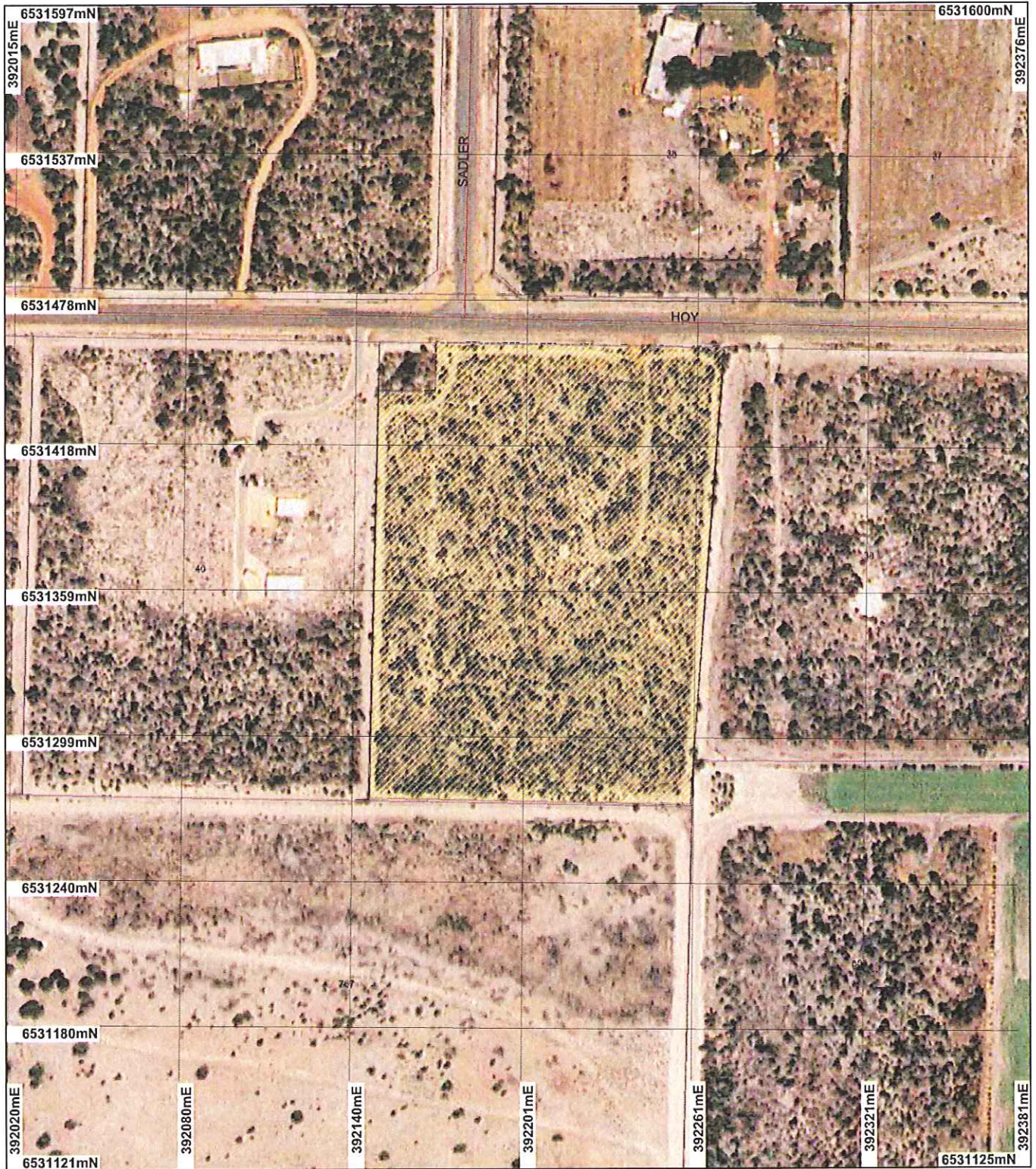


Keith Claymore
A/ ASSISTANT DIRECTOR
NATURE CONSERVATION DIVISION

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

24 September 2009

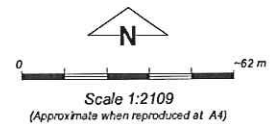
Plan 2787/1



LEGEND

- ☒ Road Centrelines
- ☐ Cadastre for labelling
- ☐ Clearing Instruments
- ☐ Areas Approved to Clear

Ginglin 50cm Orthomosaic
Landgate 2006



Geocentric Datum Australia 1994

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

K. Claymore

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.



Department of
Environment and Conservation

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* 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.: 2787/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Muscle Matrix (WA) & Grey Gold (WA) Pty Ltd

1.3. Property details

Property: LOT 39 ON PLAN 17506 (House No. 56 HOY COONABIDGEE 6503)
Local Government Area: Shire Of Gingin
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.17		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
Beard Vegetation Association 949 - Low woodland; banksia (Shepherd et al. 2001)	The proposal is to clear 2.17 hectares of native vegetation (within a 2.17 ha property) for the purpose of the development of a concrete batching plant, precast factory and a general yard.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the native vegetation under application was sourced from the site inspection undertaken 03 December 2008 (DEC 2008)
Hedde Vegetation Complex - Coonabidgee Complex; Vegetation ranges from a low open forest and low woodland of E.todtiana - B.attenuata - B.menziesii - B.ilicifolia with localised admixtures of B.prionotes to an open woodland of E.calophylla - Banksia species (Hedde et al. 1980).	The vegetation under application is described as Banksia low woodland. The vegetation includes Banksia attenuata, Banksia menziesii, Banksia ilicifolia, Xanthorrhoea preissii, Macrozamia sp, Petrophile sp, Jacksonia furcellata, Gompholobium tomentosum, Acacia pulchella, Calytrix sp, Patersonia occidentalis and Dasypogon bromeliifolius. There was limited disturbance from weeds such as veldt grass.		

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 vegetation under application is described as Banksia low woodland in an excellent condition. The vegetation includes Banksia attenuata, Banksia menziesii, Banksia ilicifolia, Xanthorrhoea preissii, Macrozamia sp, Petrophile sp, Jacksonia furcellata, Gompholobium tomentosum, Acacia pulchella, Calytrix sp, Patersonia occidentalis and Dasypogon bromeliifolius. There was limited disturbance from weeds such as veldt grass.

The vegetation under application is in an excellent condition with an overstorey consisting of Banksia sp that may provide suitable foraging habitat for the conservation significant Carnaby's Black-Cockatoo (Calyptorhynchus latirostris), however given the canopy decline, it is possible that the habitat is of low grade (DEC, 2009). In addition, the vegetation comprises of a dense understorey suitable for a range of ground-

dwelling fauna including reptiles and mammals such as the Quenda (*Isoodon obesulus fusciventer*).

Given the excellent vegetation condition, the high flora diversity and the potential habitat for conservation significant fauna, the proposed clearing may be at variance to this Principle.

Methodology **References**
- DEC (2008)
- DEC (2009)
GIS Databases
- SAC Bio Datasets 03/12/2008

(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 two fauna species of conservation significance recorded in the local area (5km radius), including the Chuditch (*Dasyurus geoffroii*) and the Western Brush Wallaby (*Macropus irma*). Both these species were recorded in the area over 40 years ago and therefore, are unlikely to occur in the area under application.

The vegetation under application is in an excellent condition with an overstorey consisting of *Banksia* sp that may provide suitable foraging habitat for the conservation significant Carnaby's Black-Cockatoo (*Calyptrorhynchus latirostris*), however given the canopy decline, it is possible that the habitat is of low grade (DEC, 2009). In addition, the vegetation comprises of a dense understorey suitable for a range of ground-dwelling fauna including reptiles and mammals such as the Quenda (*Isoodon obesulus fusciventer*). The Quenda has been identified as the most likely ground dwelling fauna species to utilise the applied area as habitat (DEC, 2009). To mitigate any potential impacts on this species, fauna management conditions will be placed on the permit.

Methodology **References**
-DEC (2008)
-DEC (2009)
GIS Databases
- SAC Bio Datasets 03/12/2008

(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 no known occurrences of rare flora recorded in the local area (~5 km radius) with the closest recording being *Ptychosema pusillum*, located 9.4 km to the east of the area under application.

This species occurs on a different soil type as the vegetation under application and occurs in different Beard and Heddl Vegetation communities.

There are seven priority flora species recorded in the local area. All of these species occur on different soil type and in different Beard and Heddl vegetation Communities except *Lechenaultia magnifica*, which occurs on the same soil type. However, this species occurs in different Beard and Heddl Vegetation Communities.

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

Methodology **GIS Databases**
- SAC Bio Datasets (assessed 03/12/08)
- Soils, Statewide

(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 five known occurrences of the Threatened Ecological Communities (TEC) Floristic Community Type 7 known as 'Herb rich saline shrublands in clay pans' (Gibson et al. 1994) within a 10km radius of the vegetation under application, the closest being approximately 7.5kms to the south.

The vegetation under application is associated with leached sands (Northcote et al 1960-68), and does not include any mapped wetland areas. Given this and the distance to this TEC, the proposed clearing is not likely to be at variance to this Principle.

Methodology **References:**
-Gibson et al. (1994)
-Northcote et al (1960-68)

- GIS Databases:
- Soils, Statewide
 - Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
 - SAC Bio Datasets (assessed 03/12/08)

(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 associated with Beard Vegetation Association 949. There is approximately 57.23% pre-European extent remaining (Shepherd 2007). The vegetation under application is associated with the Heddle Vegetation Complex Coonambidgee Complex, which has 45.1% of Pre-European extent remain respectively (EPA 2006).

Both the vegetation complexes mapped within the application area retain more than the EPA supported threshold level (30%) recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

Within a 10 km radius there is a significant remnant of vegetation along the Brand Hwy to the east of the area under application and Yeal Nature Reserve to the southwest. In addition, both Beard and Heddle vegetation communities are adequately represented at 57.23% and 45.1% respectively. Therefore, it is considered not likely for the area under application to be a significant remnant in an area that has been extensively cleared.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves/CALM managed land
IBRA Bioregions				
Swan Coastal Plain*	1,501,208	583,140	38.8	32.5
Shire of Gingin	315,560	177,688	56.3	
Vegetation type:				
Beard: 949*	218,194	124,865	57.2	49.1
Heddle:				
Coonambidgee Complex**	6,272	2,830	45.1	9.4

* (Shepherd, 2007)

** (EPA, 2006)

- Methodology**
- References
- EPA (2000)
 - EPA (2006)
 - Shepherd (2007)
 - DEC (2008)
- GIS databases:
- Heddle Vegetation Complexes
 - Interim Biogeographic Regionalisation of Australia
 - SAC Bio Datasets (assessed 03/12/08)

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is not likely to be at variance to this Principle

There are no wetlands or watercourses mapped within the vegetation under application. The closest wetland is a multiple use palusplain located 460m southwest of the area under application. The closest conservation category wetlands are several sumplands located to the north, west and south with the closest being approximately 580m to the southwest. The closest watercourse is the Gingin Brook, a minor river located 1.7 km southwest of the area under application.

A minimum wetland buffer of 50 m is required for all proposed developments to protect wetland values and functions (Water and Rivers Commission 2001). The description and appearance of the vegetation under application is associated with an upland community (DEC 2008) and therefore, the proposed clearing is not likely to be at variance to this Principle.

- Methodology**
- Reference
- DEC (2008)
 - Waters and Rivers Commission (2001)
- GIS Databases:

- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear

(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 lies within soils associated with a subdued dune-swale landscape with chief soils of leached sands (Department of Agriculture, 2004).

There is no evidence of salinity occurring within, or adjacent to, the vegetation under application. Furthermore, the risk of wind and water erosion is low given the small area of vegetation applied to be cleared (2.17ha).

Therefore, the proposed clearing is not likely to lead to appreciable land degradation and is not likely to be at variance to this Principle.

Methodology

References:

-Department of Agriculture (2004)

GIS databases:

-Salinity Risk LM 25m

- Soils, Statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments Proposal is not likely to be at variance to this Principle

There are no DEC managed lands within close proximity to the vegetation under application. The closest conservation area is the Yeal Nature Reserve occurring approximately 6.4kms south west of the vegetation under application. There are six System 6 Conservation Reserves within a 10km radius of the vegetation, with the closest being approximately 4km to the east.

The vegetation under application does not provide a linkage to any remnants or conservation reserves in the local area.

Given the distance and the lack of ecological linkages to the conservation areas it is considered unlikely for the proposed clearing to directly impact the environmental values of adjacent or nearby conservation reserve.

Methodology

GIS Databases

- Bushforever

- DEC Managed Lands and Waters

- System 6 Conservation Reserve

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments Proposal is not likely to be at variance to this Principle

There are no wetlands or watercourses mapped within the vegetation under application. The closest wetland is a multiple use palusplain located 460m southwest of the area under application. The closest watercourse is the Gingin Brook, a minor river located 1.7 km southwest of the area under application.

Given the distance to the nearest wetland and watercourse the proposed clearing is not considered likely to cause deterioration to the quality of surface water in the local area.

Salinity risk and groundwater salinity for the area under application is considered low and moderate to low, respectively and therefore the proposed clearing is not considered likely to cause deterioration to the quality of groundwater in the local area.

Given this, and the distance from the nearest wetland and watercourse, the proposed clearing is not considered likely to be at variance to this Principle.

Methodology

Reference

- Waters and Rivers Commission (2001)

GIS Databases:

- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain

- Groundwater Salinity, Statewide

- Hydrography, linear

- Salinity Risk LM 25m

(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

There are no wetlands or watercourses mapped within the vegetation under application. The closest wetland is a multiple use palusplain located 460m southwest of the area under application. The closest watercourse is the Gingin Brook, a minor river located 1.7 km southwest of the area under application.

Given the distance of the nearest wetland and watercourse to the area under application; and the sandy leached soils of the area (Northcote et al. 1960-68), the proposed clearing is not considered likely to cause, or exacerbate the incidence or intensity of flooding.

Methodology References

- Northcote et al. (1960-68)
- GIS Databases
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, Linear

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

Comments

The proposal is to clear 2.17 ha of native vegetation for the construction of a concrete batching plant, precast factory and general yard.

The area under application is zoned Rural Industrial under the Shire of Gingin Town Planning Scheme.

Planning approval has been received from the Shire of Gingin (Shire of Gingin 2009b)

Works approval under part V of the Environmental Protection Act (1986) would be required prior to the construction of a concrete batching plant.

It has been noted that some dust related issues may arise and should be dealt with under the appropriate section of the DEC and Shire (DEC, 2009).

Methodology

References

- DEC (2008)
- DEC (2009)
- Shire of Gingin (2009)

4. Assessor's comments

Comment

The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986 and has found:

Principle (a) & (b) may be at variance and is not likely to be at variance to the remaining principles.

5. References

- DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2787/1, Lot 39 Hoy Road, Coonabidgee. Site inspection undertaken 03/12/2008. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC70036).
- DEC (2009) Species and Communities Branch Advice. Dr Peter Mawson (DEC, Principle Zoologist) Department of Environment and Conservation Trim Ref DOC98591).
- Department of Agriculture (2005) AgMaps Land Manager CD-rom for the Shires of Serpentine-Jarrahdale, Kwinana, Rockingham, Mandurah, Murray, Boddington, Waroona and Harvey. Department of Agriculture, Western Australia. ISSN: 1448-235X.
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. 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.
- Gibson N., Keighery B., Keighery G., Burbidge A. and Lyons M. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management and the Western Australian Conservation Council.
- 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.
- 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Gingin (2009) Planning approval for Lot 39 Hoy Rd, Coondabidgee (TRIM Ref. DOC96743).
- Water and Rivers Commission (2001). Position Statement: Wetlands, Water and Rivers Commission, Perth.

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)