



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5717/1

File Number: 2012/000690

Duration of Permit: From 16 November 2013 to 16 November 2015

PERMIT HOLDER

D. & C. Geraghty Pty Ltd.

LAND ON WHICH CLEARING IS TO BE DONE

Lot 23 on Deposited Plan 238318, Kookynie.

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 100 hectares of native vegetation within the area shaded yellow on attached Plan 5717/1.

CONDITIONS

Dieback and weed control

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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

DEFINITIONS

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

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

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 mean any plant -

- (a) that is a declared pest under section 22 of the Biosecurity and Agriculture Management Act 2007; or
- (b) published in the former Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned; and
- (d) that is a species permitted for planting under a Pastoral Diversification Permit issued by the Department of Regional Development and Lands.

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

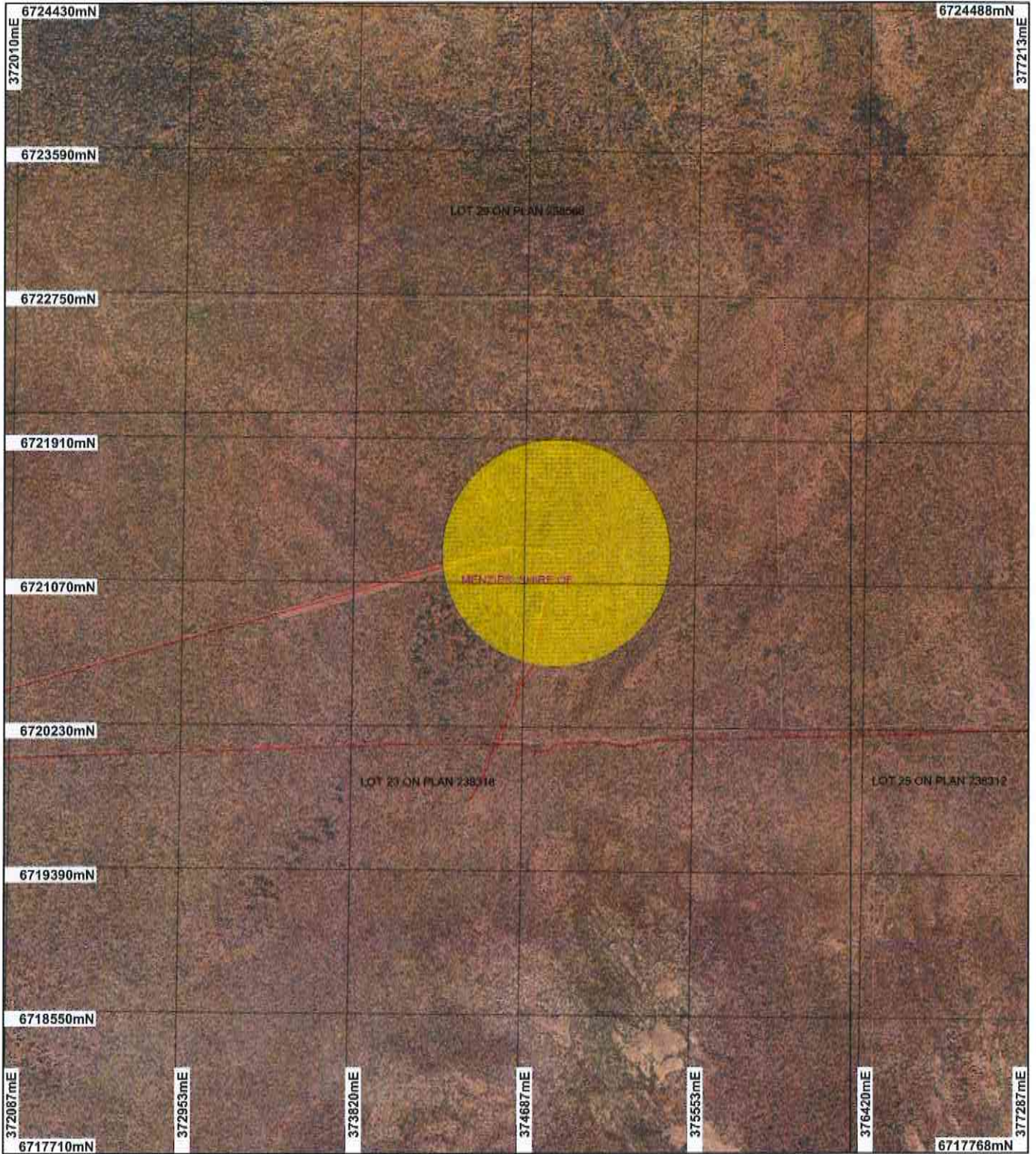
M Warnock
MANAGER

NATIVE VEGETATION CONSERVATION BRANCH

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

17 October 2013

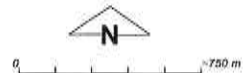
Plan 5717/1



LEGEND

-  Cadastre
-  Local Government Authorities
-  Road Centrelines

- Clearing Instruments**
-  Areas Approved to Clear
 - Boyce 1.4m Orthomosaic - Landgate 2003



Scale 1:30001
(Approximate when reproduced at A4)

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 17/10/13

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.



Government of Western Australia
Department of Environment Regulation

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Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 5717/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: D & C Geraghty Pty Ltd

1.3. Property details

Property: LOT 23 ON PLAN 238318 (KOOKYNIE 6431)
Local Government Area: Shire of Menzies
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
100		Mechanical Removal	Pastoral Diversification

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 October 2013

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: 18 - Low woodland; mulga (Acacia aneura) (Shepherd et al. 2001).	The application is to clear up to 100 hectares of native vegetation for the purpose of pivot irrigation on Lot 23 on Deposited Plan 238318, Kookynie, in the Shire of Menzies.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Vegetation description and condition were determined through aerial imagery and supporting documentation provided by the applicant (Woolibar 2011). The vegetation under application consists predominately of Mulga and Eucalyptus low woodlands (Woolibar 2011).

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**

This application is to clear up to 100 hectares of native vegetation within Lot 23 on Deposited Plan 238318, Kookynie, for the purpose of pivot irrigation.

The local area (30 kilometre radius) is well vegetated, with approximately 90 percent vegetation cover. The application area is unlikely to represent an area of higher biodiversity value when compared to representative vegetation in a local and regional context.

Two priority flora species have been recorded within the local area (30 kilometre radius). The closest records of the Priority 1 and Priority 4 species are located approximately 20 kilometres north east and 15 kilometres east, respectively. Both records occur on the same vegetation type as the application area, but on different soil types. Given the distance from the application area and that both species have been recorded on a different soil type, it is unlikely these species would be found within the application area.

No priority ecological communities have been recorded within the local area (30 kilometre radius).

The disturbance caused by the proposed clearing will increase the risk of weeds being introduced into the remaining adjacent vegetation. Weed management practices will assist in mitigating this risk.

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

Methodology GIS Databases:
- Boyce 1.4m Orthomosaic - Landgate 2003
- Pre-European Vegetation
- SAC Biodatasets
- Soils, Statewide

(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 at variance to this Principle**

There are two fauna species of conservation significance recorded within a 40 kilometre radius of the application area; Peregrine Falcon (*Falco peregrinus* subsp. *Macropus*) and Bush Stone-curlew (*Burhinus grallarius*) (DEC 2007-). Supporting information provided during a previous application over the area advised a number of fauna species could potentially occur within the application area. These include Malleefowl (*Leipoa ocellata*), Slender-billed Thornbill (*Acanthiza iredalei*) and Peregrine Falcon (*Falco peregrinus*) (Woolibar 2011)

There is no known evidence of Malleefowl activity within the application area (Woolibar 2011). The application area may provide habitat for the Peregrine Falcon and the Slender-billed Thornbill however it is unlikely both species would inhabit the application area exclusively (Woolibar 2011).

The majority of fauna habitats within the area proposed to be cleared are well represented elsewhere within the local and regional area. The loss of habitat for fauna indigenous to Western Australia as a result of the proposed clearing is not considered to be significant. The proposed clearing will not remove ecological linkages that are necessary for the maintenance of fauna.

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

Methodology References:
DEC 2007-
Woolibar 2011

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments **Proposal is not at variance to this Principle**

There are no mapped records of rare flora located within the local area (30 kilometre radius).

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

Methodology GIS Databases:
- SAC Biodatasets

(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 at variance to this Principle**

There are no records of threatened ecological communities within the local area (30 kilometre radius).

Therefore, the proposed clearing is not at variance to this principle.

Methodology GIS Databases:
- SAC Biodatasets

(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**

Aerial photography indicates the local area (30 kilometre radius) is approximately 90 percent vegetated.

The IBRA Bioregion (Murchison) and the local government agency (Shire of Menzies) both retain approximately 100 percent of their pre-European extents (Government of Western Australia 2013).

The vegetation under application is mapped as Beard Vegetation Association 18 which has approximately 100 percent of its Pre European extent remaining in the Murchison Bioregion (Government of Western Australia 2013).

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

Given the above, the proposed clearing is not at variance to this principle

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion* Murchison	28,120,587	28,120,587	100	8
Shire* Shire of Menzies	12,417,934	12,416,768	100	27
Beard Vegetation Association in Bioregion* 18	12,403,172	12,403,172	100	5

* Government of Western Australia 2013

Methodology References:
Commonwealth of Australia 2001
Government of Western Australia 2013
GIS Databases:
- Boyce 1.4m Orthomosaic - Landgate 2003
- NLWRA, Current extent of Native Vegetation
- Pre-European Vegetation
- SAC Biodatasets

(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**
There are no mapped wetlands or watercourses mapped within the application area. The applicant has advised 'there are no known watercourses within the project area' (Woolibar 2011).

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

Methodology References:
Woolibar 2011
GIS Databases:
- Hydrography, linear

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

Comments **Proposal may be at variance to this Principle**
The application area has been mapped as soil type Uc1, which Northcote et al. (1960-1968) describes as steep hilly to hilly dissected lateritic plateau with steep valley side slopes: chief soils are hard, and also sandy, neutral, and also acidic, yellow and yellow mottled soils, with conspicuous but relatively smaller areas of red earths.

The Department of Agriculture and Food Western Australia (2012, 2013) advised the site is likely to have deep red earth soils supporting Mulga shrubland. In its undisturbed state, the site would not be prone to accelerated soil erosion. However, once the protective vegetation is removed to enable the development to occur, the application area would have a moderate erosion risk during overland flow following major rainfall events.

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

Supporting documentation provided by the applicant has advised minimisation of land degradation will be achieved by applying best practice clearing and rehabilitation methods. Management strategies to achieve this include utilising existing tracks, firebreaks, fence lines or pipeline/power corridors for access wherever possible, confining vehicle movements to clearly defined tracks, conducting clearing activities during periods of low winds, stockpiling vegetation for use in rehabilitation, seeding of irrigation crop directly after clearing to reduce the possibility of wind and water erosion of topsoil, locating tracks to minimise erosion of watercourse beds and slopes and minimising amount of heavy vehicle movement on tracks to limit soil compaction (Woolibar 2011).

Methodology References:
DAFWA 2012
DAFWA 2013
Northcote et al 1960-1968
Woolibar 2011

(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

The closest recorded conservation area is Goongarrie National Park (A Class) which is located approximately 28 kilometres south of the area under application.

Approximately 100 percent of the vegetation within the Murchison bioregion remains uncleared. Therefore, it is unlikely the application area provides an important buffer or ecological linkage to Goongarrie National Park.

Given the above, the clearing as proposed is not at variance to this principle.

Methodology GIS Databases:
-DEC Tenure

(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 groundwater salinity within the application area is approximately 1000 - 3000 milligrams per litre of Total Dissolved Solids (TDS). This level of groundwater salinity is considered to be brackish to moderately saline. Given the application area is surrounded by remnant vegetation, the clearing is unlikely to significantly increase groundwater salinity.

The applicant has advised 'there are no known watercourses within the project area' (Woolibar 2011). Supporting information supplied by the applicant has advised all irrigation and incidental rainwater will be directed into the crop area and no drainage erosion is expected beyond this localised area (Woolibar 2011).

Given the above, the clearing as proposed is not at variance to this principle.

Methodology References:
Woolibar 2011
GIS Databases:
- Groundwater Salinity, Statewide
- Hydrography, Linear

(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

There are no permanent waterways that will be affected by the proposed clearing. The proposed clearing is not expected to increase the incidence or intensity of flooding within the local area.

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

Methodology GIS Databases:
-Hydrography, linear

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

Comments

The application is to clear 100 hectares of native vegetation for the purpose of pivot irrigation on Lot 23 on Deposited Plan 238318, Kookynie, in the Shire of Menzies. The previous land owner applied for a clearing permit from the former Department of Environment and Conservation on 7 February 2013 (CPS 4864/1). This application was refused as the applicant did not have a Department of Water licence to take groundwater.

The application area is located within the Goldfields Groundwater Area covered by the Rights in Water and Irrigation Act 1914. The applicant has advised the groundwater will be extracted using the existing Bobs Bore (Woolibar 2011). The applicant has advised that a Department of Water licence to take groundwater has been applied for. A final decision on this application has not been made.

The application area is located within a Native Title claim area determined by the Federal Court. The claimants (Strickland/Nudding) were given the opportunity to make comment on the application under s24GB of the Native Title Act 1993 (NT Act). On behalf of the claimants, the Goldfields Land and Sea Council (GLSC) have provided advice regarding the granting of CPS 5736/1 (GLSC 2013). GLSC is concerned that the land cleared and ground disturbing works may impact on Aboriginal heritage sites and has advised that a heritage survey should be conducted. The applicant has been notified of this advice.

DAFWA (2012, 2013) has advised the following:

- The site should be fenced to ensure that ground cover is maintained on the pivot site after each harvest and

- to encourage revegetation with mulga and other species if the site is abandoned at some future date.
- As a result of the salinity of the bore water, it would only be suitable for forage crops that are known to tolerate high salinity.
- Irrigation within the application area may add around 40 tonnes of salt per hectare per year. This accumulation of salt on the surface soil and root zone is likely to occur unless a leaching fraction of 20 - 25% is budgeted in the irrigation water management program.
- The accumulation of salt in the surface soil risks germination failures and production losses due to ion toxicity and reduced water uptake.
- Frequent night watering may reduce the problems likely to be encountered with irrigation water of this quality.

Supporting information provided by the applicant (Woolibar 2011) has advised:

- The cleared area will be fenced from surrounding native vegetation
- Cleared vegetation will be stockpiled for use in rehabilitation activity once irrigation activities within the application area have ceased
- Redirection of drainage will occur around the project site to maximise all drainage flowing into the irrigation area.

The former Department of Regional Development and Lands (2013) advised that they have no objection to the clearing permit and are currently processing an application for a diversification permit application to grow irrigated sorghum, maize, lucern and oats over the area subject to the native vegetation clearing permit application. DAFWA (2010) have listed these species as permitted non indigenous plant species and as being suitable for irrigated production. These species are considered to be lowest risk to the environment and should be suitable for most circumstances.

One submission (2012) was received regarding the previous application over this area (CPS 4864/1). The submission raised concerns about water use and priority and threatened flora. The potential presence of priority and threatened flora has been discussed in principles (a) and (c). The issue of water use is not related to the clearing of native vegetation and therefore has not been discussed in this assessment.

Methodology	<p>References</p> <p>DAFWA 2010</p> <p>DAFWA 2012</p> <p>DAFWA 2013</p> <p>Department of Regional Development and Lands 2013</p> <p>GLSC 2013</p> <p>Submission 2012</p> <p>Woolibar 2011</p> <p>GIS Databases</p> <p>- RIWI Act, Groundwater Water Areas</p>
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4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DAFWA (2010) Non indigenous plant species lists for Western Australian rangelands. Department of Agriculture and Food Western Australia, Western Australia.
- DAFWA (2012) Advice for application for Clearing Permit CPS 4864/1 - Lot 23 on Deposited Plan 238318, Edjudina Location 23, Kookynie. Department of Agriculture and Food Western Australia, Western Australia. DER REF A490869.
- DAFWA (2013) Advice for application for Clearing Permit CPS 5717/1 - Lot 23 on Deposited Plan 238318, Edjudina Location 23, Kookynie. Department of Agriculture and Food Western Australia, Western Australia. DER REF A677780.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>.
- Department of Regional Development and Lands (2013) Advice for Clearing Permit application CPS 5717/1 - Lot 23 on Deposited Plan 238318, Kookynie. Department of Regional Development and Lands, Western Australia. DER REF A668117.
- GLSC (2013) Advice for application for Clearing Permit CPS 5717/1 - Lot 23 on Deposited Plan 238318, Edjudina Location 23, Kookynie. Goldfields Land and Sea Council, Western Australia. DER REF: A665906.
- Government of Western Australia. (2013). 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- 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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Submission (2012) Submission received for CPS 4864/1 - Lot 23 on Deposited Plan 238318, Kookynie. Western Australia. DER REF A491505.
- Woolibar (2011) Area Permit Application Menangina Station - Assessment of Clearing Principles (2011). Woolibar, Western Australia. DER REF A654569.

5. Glossary

Term	Meaning
DAFWA	Department of Agriculture and Food
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community