



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6569/1
File Number: 2015/001107-1
Duration of Permit: 6 June 2016 – 6 June 2021

PERMIT HOLDER

Commissioner of Main Roads Western Australia

ADVICE NOTE

The funds referred to in condition 8 of this permit are intended for contributing towards the purchase of 10 hectares of native vegetation in a highly cleared landscape, with similar environmental values within the Geraldton Sandplains IBRA bioregion.

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of road construction.

2. Land on which clearing is to be done

North West Coastal Highway road reserve (Pin 1308645), Binuu

3. Area of Clearing

The Permit Holder must not clear more than 1.2 hectares of native vegetation within the area shaded yellow on attached Plan 6569/1.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for the project activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those *project activities* under the *Main Roads Act 1930* or any other written law.

PART II – MANAGEMENT CONDITIONS

6. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

7. 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*:
- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within and adjacent to areas cleared under this Permit.

8. Monetary contributions to a fund maintained for the purpose of establishing or maintaining vegetation (offset)

Prior to undertaking any clearing authorised under this Permit and no later than 16 May 2017, the Permit Holder shall provide documentary evidence to the CEO that funding of \$39,820 has been transferred to the Department of Environment Regulation for the purpose of establishing or maintaining native vegetation.

9. Translocation Proposal

- (a) Prior to 30 June 2017, the Permit Holder shall prepare a detailed translocation proposal for *Androcalva bivillosa*, for the approval of the CEO of the Department of Environment Regulation; and
- (b) The Permit Holder shall implement the translocation proposal approved under condition 9(a) of this permit.

10. Management Plan

The Permit Holder must implement and adhere to the document Vegetation Management Plan, North West Coastal Highway, SLK 92.2 to SLK 95, October 2015, submitted to DER on 30 October 2015.

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 means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



Kelly Faulkner
EXECUTIVE DIRECTOR
LICENSING AND APPROVALS

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

16 May 2016

Plan 6569/1



Legend

- Areas approved to clear
 - Roads
 - LGA
 - Cadastre
- Virtual Mosaic (LGATE-V001)



1:10,000

MGA 94
Geocentric Datum of Australia 1994

Kelly Faulkner
Date 16/5/16

Officer with delegated authority under Section 20
of the Environmental Protection Act 1986





Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 6569/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Main Roads Western Australia

1.3. Property details

Property: North West Coastal Highway road reserve (PIN 1308645), Binu
Local Government Area: Shire of Northampton

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.2	0	Mechanical Removal	Road Construction

1.5. Decision on application

Decision on Permit Application: Granted

Decision Date: 16 May 2016

Reasons for Decision: 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 concluded that the proposed clearing is at variance to principle (a), (c) and (e), may be at variance to principle (h) and is not likely to be at variance to the remaining clearing principles.

Through assessment it has been determined that the clearing will directly impact populations of a rare flora species and lead to the loss of 1.2 hectares of native vegetation considered to be a significant remnant of native vegetation in an area that has been extensively cleared.

To mitigate the significant environment impacts identified above, and in accordance with the WA Environmental Offset Policy and Environmental Offsets Guidelines, prior to undertaking any clearing, the Permit Holder:

- is to provide documentary evidence that funds for contribution towards the purchase of 10 hectares of remnant vegetation, have been transferred to the Department of Environment Regulation;
- Must implement and adhere to a Vegetation Management Plan to limit impacts to adjacent vegetation;
- Implement a translocation proposal for the rare flora species that will be of a benefit to its long term security.

The Delegated Officer has taken into consideration the vegetation management plan, offset and translocation proposals and that the Department of Parks and Wildlife have issued a Permit to Take Declared Rare Flora pursuant to Section 23F of the Wildlife Conservation Act 1950 in the decision to grant a permit.

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

The proposed clearing is mapped as Beard vegetation association's (Shepherd et al, 2001):

- 380 which is described as shrublands, scrub-heath on sandplain; and
- 408 which is described as shrublands, scrub-heath on coastal association, yellow sandplain.

A biological survey of the proposed clearing described the vegetation as highly variable mixed open scrub to high shrubland of *Acacia* spp., *Grevillea* spp., *Hakea* spp., *Callitris arenaria*,

Clearing Description

To clear 1.2 hectares of native vegetation within North West Coastal Highway road reserve, for the purpose of road construction.

Vegetation Condition

Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).

To

Pristine; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Comment

The condition of the vegetation under application was determined via a biological survey (GHD, 2014).

Alyxia buxifolia, *Melaleuca* spp., Myrtaceous shrubs, Ericaceous shrubs, *Jacksonia* spp. with Scattered emergent *Banksia* spp., *Eucalyptus* spp., and *Bursaria occidentalis* over mixed grasses and sedges on sandplains (GHD, 2014).

3. Assessment of application against Clearing Principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments Proposed clearing is at variance to this Principle

The application is to clear 1.2 hectares of native vegetation within North West Coastal Highway road reserve, for the purpose of road construction.

A biological survey of the proposed clearing described the vegetation as highly variable mixed open scrub to high shrubland of *Acacia* spp., *Grevillea* spp., *Hakea* spp., *Callitris arenaria*, *Alyxia buxifolia*, *Melaleuca* spp., Myrtaceous shrubs, Ericaceous shrubs, *Jacksonia* spp. with scattered emergent *Banksia* spp., *Eucalyptus* spp., and *Bursaria occidentalis* over mixed grasses and sedges on sandplains (GHD, 2014). No priority ecological communities or threatened ecological communities were identified within the application area (GHD, 2014).

A flora survey of the application area undertaken August to September 2013, recorded a flora species listed as critically endangered within the application area (GHD, 2014). The survey identified 25 individuals across three populations equating to 47 per cent of the known individuals of this species that would be removed (Parks and Wildlife, 2015a). It was noted however, that three of the 25 plants had subsequently been removed during road shoulder maintenance works.

A subsequent site inspection undertaken 19 February 2015 with Department of Parks and Wildlife (Parks and Wildlife) and Main Roads Western Australia (MRWA) representatives recorded 18 plants of this species within the application area at 14 separate locations (GHD, 2015). Parks and Wildlife has advised that this equates to approximately 24 per cent of the total number of recorded plants of this species. Eight populations of this species are known; clearing the vegetation under application would remove approximately 50 per cent of one population and 62 per cent of another (Parks and Wildlife, 2015b). A further inspection undertaken by MRWA on 14 October 2015 identified two new plants, however, three of the previously identified 18 plants had died and three could not be located.

The applicant has provided a Vegetation Management Plan (VMP) that outlines management measures in order to limit the impact to individuals of this rare species that will not be directly removed. The applicant is also currently working with Parks and Wildlife to develop a translocation proposal for this species including the propagation of new plants. This translocation proposal aims to create a viable population of the species outside of the potential disturbance of the road corridor and therefore, benefit the long term conservation of the species.

The flora survey undertaken August to September 2013 also recorded two flora species listed as Priority (P) by Parks and Wildlife. Species one was recorded from one population containing eight individuals and is listed as P2. Species one is known from approximately four locations with a severely restricted range (Parks and Wildlife, 2015a). Species two was recorded from two locations with a single specimen at each and is listed as P3. The applicant has amended the proposed clearing to avoid the direct clearing of these species. The VMP provided contains management measures that will limit indirect impacts to these species (MRWA, 2015).

Two fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act, 1950* have been recorded within 20 kilometres of the application area (Parks and Wildlife, 2007-); Carnaby's cockatoo (*Calyptorhynchus latirostris*) and gilled slender blue-tongue skink (*Cyclodomorphus branchialis*). Given the distribution of these species, the linear nature of clearing, habitat types present and presence of vegetation adjoining the proposed clearing, it is not likely to contain significant habitat for these species.

The local area (10 kilometre radius) retains approximately 15 per cent native vegetation. Given this, the application area falls within a highly cleared landscape.

The applicant has consulted with Parks and Wildlife to develop a translocation proposal for this species including the propagation of new plants. This translocation proposal aims to create a viable population of the species outside of the potential disturbance of the road corridor and therefore create a long term benefit to the conservation of the species. The Department of Parks and Wildlife has endorsed the translocation proposal for the rare flora species as a means of accounting for the significant impacts to this species.

Given the above the proposed clearing is at variance to this clearing Principle.

Methodology References:
GHD (2014)
GHD (2015)
MRWA (2015)
Parks and Wildlife (2007-)
Parks and Wildlife (2015a)

(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 Proposed clearing is not likely to be at variance to this Principle

Two fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* have been recorded within 20 kilometres of the application area (Parks and Wildlife, 2007-); Carnaby's cockatoo (*Calyptorhynchus latirostris*) and gilled slender blue-tongue skink (*Cyclodomorphus branchialis*).

The application area falls to the north of the known range of Carnaby's cockatoo. A habitat assessment of the application area undertaken by GHD (2014) determined that clearing the vegetation under application is not likely to significantly impact on this species. Given this and the presence of suitable habitat within the surrounding area, Carnaby's cockatoo is not likely to be significantly impacted by the proposed clearing.

Although the gilled slender blue-tongue skink has been recorded within the local area, given the relatively small scale and linear nature of the proposed clearing and the presence of better quality vegetation in close proximity to the application area, that is likely to form better quality habitat; clearing the vegetation under application is not likely to significantly impact on this species (GHD, 2014).

Given its linear nature and the presence of native vegetation adjacent to the application area, the proposed clearing is not likely to form part of an ecological linkage, facilitating the movement of fauna across the landscape.

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

Methodology References
Parks and Wildlife (2007-)
GHD (2014)

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

Comments Proposed clearing is at variance to this Principle

A flora survey of the proposed clearing undertaken August to September 2013, recorded a flora species listed as critically endangered (GHD, 2014). The survey identified 25 individuals across three populations equating to 47 per cent of the known individuals of this species that would be removed (Parks and Wildlife, 2015a). It was noted however, that three of the 25 plants had subsequently been removed during road shoulder maintenance works.

A subsequent site inspection undertaken 19 February 2015 with Parks and Wildlife and MRWA representatives (GHD, 2015) recorded 18 plants of this species within the application area at 14 separate locations. Parks and Wildlife has advised that this currently equates to approximately 24 per cent of the total number of recorded plants of this species. Eight populations of this species are known; clearing the vegetation under application would remove approximately 50 per cent of one population and 62 per cent of another (Parks and Wildlife, 2015b). A further inspection undertaken by MRWA on 14 October 2015 identified two new plants, however, three of the previously identified 18 plants had died and three could not be located.

In order to manage the impacts to individuals of this species that occur adjacent to the application area the applicant has developed a VMP. Actions include (MRWA, 2015):

- Flagging all individuals of this species that are to be avoided;
- Dust management to limit impacts to adjoining specimens;
- Drainage management;
- Weed and hygiene management;
- Education of staff; and
- An environmental officer will remain on site prior to and during construction.

The applicant has consulted with Parks and Wildlife to develop a translocation proposal for this species including the propagation of new plants. This translocation proposal aims to create a viable population of the species outside of the potential disturbance of the road corridor and therefore create a long term benefit to the conservation of the species. Actions within this translocation proposal include (MRWA, 2015):

- Site selection;
- Design of translocation;
- Success criteria and monitoring;
- Fencing (rabbit proof);
- Reticulation;
- Seed collection;

- Propagation at the Kings Park nursery; and
- A budget (draft translocation budget currently at \$76,666.15).

The implementation of a translocation proposal is likely to benefit the conservation of the rare flora species in the long term and minimise impacts to the species. The Department of Parks and Wildlife has endorsed the translocation proposal for the rare flora species as a means of accounting for the significant impacts to this species.

On 13 May 2016 the Department of Parks and Wildlife issued Main Roads WA a Permit to Take Declared Rare Flora pursuant to Section 23F of the Wildlife Conservation Act 1950.

Given the above the proposed clearing is at variance to this Principle.

Methodology References:
 GHD (2014)
 GHD (2015)
 MRWA (2015)
 Parks and Wildlife (2015a)
 Parks and Wildlife (2015b)

(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 Proposed clearing is not likely to be at variance to this Principle

A biological survey of the proposed clearing described the vegetation as highly variable mixed open scrub to high shrubland of *Acacia* spp., *Grevillea* spp., *Hakea* spp., *Callitris arenaria*, *Alyxia buxifolia*, *Melaleuca* spp., Myrtaceous shrubs, Ericaceous shrubs, *Jacksonia* spp., with scattered emergent *Banksia* spp., *Eucalyptus* spp., *Bursaria occidentalis* over mixed grasses and sedges on sandplains (GHD, 2014).

The biological survey did not find the vegetation under application to be representative of a threatened ecological community (TEC) (GHD, 2014). No TEC's have been recorded within 50 kilometres of the application area.

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

Methodology References:
 GHD (2014)

GIS Datasets:
 SAC Biodatasets - accessed May 2016

(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 Proposed clearing is at variance to this Principle

The proposed clearing is located within the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion retains approximately 44 per cent pre-European vegetation (Government of Western Australia, 2014).

The proposed clearing is mapped as Beard vegetation association's 380 and 408 of which there is approximately 62 per cent and 45 per cent pre-European extent remaining within the Geraldton Sandplains bioregion respectively (Government of Western Australia, 2014).

The proposed clearing is located within the Shire of Northampton, within which there is approximately 73 per cent pre-European extent of vegetation remaining (Government of Western Australia, 2014).

The national objectives and targets for biodiversity conservation in Australia have 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). Although all mapped vegetation associations retain above this level, the local area (10 kilometre radius) is highly cleared, retaining approximately 15 per cent native vegetation.

Portions of the proposed clearing have been mapped in a pristine (Keighery, 1994) condition (GHD, 2014) and the proposed clearing will involve impacting significant populations of a critically endangered flora species (Parks and Wildlife, 2015a; 2015b). Noting the vegetation condition and presence of rare flora, the application area is considered a significant remnant.

Given that the application area falls within a highly cleared landscape and is a significant remnant, the proposed clearing it is at variance to this Principle. In order to account for the impacts to clearing within a highly cleared landscape the applicant has agreed to provide a financial contribution for the purchase of 10 hectares of vegetated land within the Shire of Northampton for conservation. The purchase of 10 hectares of vegetated land sufficiently account's for the identified residual environmental impact.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Geraldton Sandplains	3,136,037	1,404,375	44	40
Shire*				
Northampton, Shire of	1,258,428	930,228	73	24
Beard Vegetation Association in Bioregion*				
380	507,696	319,296	62	39
408	328,527	149,051	45	66

Methodology References:
Commonwealth of Australia (2001)
*Government of Western Australia (2014)
GHD (2014)
Keighery (1994)
Parks and Wildlife (2015a)
Parks and Wildlife (2015b)

(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 **Proposed clearing is not likely to be at variance to this Principle**
No watercourses or wetlands have been mapped within the proposed clearing. The closest occurs at approximately 1.7 kilometres.

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

Methodology GIS Datasets:
Hydrography, Lakes
Hydrography Linear

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

Comments **Proposed clearing is not likely to be at variance to this Principle**
As the proposed clearing is linear in nature and does not contain mapped watercourses or wetlands, it is not likely to cause significant wind erosion, water erosion, waterlogging, salinity or eutrophication.

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

Methodology GIS Datasets:
Hydrography, Lakes
Hydrography, Linear

(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 **Proposed clearing may be at variance to this Principle**
Two conservation reserves have been mapped within the local area (10 kilometre radius). The closest is an un named reserve occurring approximately 50 meters from the proposed clearing. Given the distance to this nature reserve, the proposed clearing may increase the spread of weeds into this reserve. As the proposed clearing is linear in nature, impacts are likely to be minimal.

Given its position within the landscape, the proposed clearing is not likely to be significant in the movement of native flora or fauna across the landscape.

Given the above, the proposed clearing may be at variance to this Principle. A VMP containing weed management procedures has been provided in order to limit the impacts to the adjoining reserve.

Methodology GIS Datasets:
Parks and Wildlife 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 Proposed clearing is not likely to be at variance to this Principle

Groundwater salinity within the application area is mapped at 500 -1000 total dissolved solids, milligrams per litre. Given this and the linear application area, the proposed clearing is not likely to deteriorate the quality of groundwater.

As the proposed clearing is linear in nature and does not contain mapped watercourses or wetlands, it is not likely to impact on the quality of surface water.

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

Methodology GIS Datasets:
Groundwater Salinity Statewide
Hydrography, Lakes
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 Proposed clearing is not likely to be at variance to this Principle

The closest mapped watercourse occurs approximately 1.7 kilometres from the proposed clearing. Given this, the relatively small amount of clearing to be undertaken and its linear nature, removing the vegetation under application is not likely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology GIS Datasets:
Hydrography, Lakes
Hydrography, Linear

Planning Instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments The application area forms part of Main Roads Western Australia's larger strategic upgrade of North West Coastal Highway from SLK 54.16 to 115. The larger strategic project is being cleared under Clearing Permit CPS 818/12, however the area containing the rare flora has been removed from the CPS818/12 approval and submitted separately to the Department of Environment Regulation and forms the current application.

The proposed clearing occurs at SLK 92.2 to 95. The proposed clearing under CPS 818/12, pertaining to North West Coastal Highway SLK 54.16 to 66.2, SLK 83.5 to 92.2 and SLK 95 to 115 was approved subject to the provision of funds for the acquisition of a significant remnant within the Shire of Northampton. This offset accounted for the significant residual environmental impacts of clearing within a highly cleared landscape.

On 17 August 2015 the applicant was sent a letter outlining the identified significant environmental impacts of CPS 6569/1 and invited to provide a response to the issues raised. A reply was received on 30 October 2015 containing (MRWA, 2015):

- A revised application area in order to avoid impacts to identified priority flora;
- A revised VMP to manage the proposed clearing impacts;
- A preliminary translocation proposal; and
- A financial contribution offset proposal.

On 19 January 2016, MRWA agreed to a revised monetary offset of \$39,820, accounting for the environmental impacts of clearing within a highly cleared landscape.

On 13 May 2016 the Department of Parks and Wildlife issued Main Roads WA a Permit to Take Declared Rare Flora pursuant to Section 23F of the Wildlife Conservation Act 1950.

No Aboriginal Sites of Significance have been mapped within the application area.

The proposed clearing was advertised in the West Australian Newspaper on 18 May 2015, no public submissions have been received in relation to this application.

Methodology References:
MRWA (2015)

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- GHD (2014) Main Roads Western Australia, North West Coastal Highway, Biological Survey, May 2014. DER ref: A915977.
- GHD (2015) Clearing Impact Assessment and Vegetation Management Plan, North West Coastal Highway SLK 92.2 to SLK 95, April 2015. DER ref: A915977.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2014. WA Department of Parks and Wildlife, 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.
- MRWA (2015) Information submitted in support of Clearing Permit Application CPS 6569/1. Received 30 October 2015. DER ref: A998175.
- Parks and Wildlife (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed July 2015.
- Parks and Wildlife (2015a) Species and Communities flora advice received in relation to CPS 818/12, submission north West Coastal Highway. Received 19 January 2015. DER ref: A855690.
- Parks and Wildlife (2015b) Species and Communities flora advice received in relation to CPS 6569/1. Received 4 August 2015. DER ref: A945288.
- 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.

