



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 6766/1

Duration of Permit: From 11 June 2016 to 13 April 2021

PERMIT HOLDER

Mr Vincent Edwards

Mrs Sheila Edwards

LAND ON WHICH CLEARING IS TO BE DONE

LOT 4205 ON DEPOSITED PLAN 208196, KALOORUP

AUTHORISED ACTIVITY

1. Type of Clearing Authorised/Method

The Permit Holder shall not clear more than 3.6 hectares of native vegetation within the area cross-hatched yellow on attached Plan 6766/1.

2. Fauna Management

While undertaking any activity authorised under condition 1 of this permit:

- (a) a *fauna specialist* must be on site at the time of clearing to identify western ringtail possums (*Pseudocheirus occidentalis*); and
- (b) where western ringtail possums (*Pseudocheirus occidentalis*) are identified, the *fauna specialist* must remove and relocate the fauna.

3. Revegetation and Rehabilitation

- (a) The Permit Holder shall, at an *optimal time* prior to 30 June 2018, deliberately plant at least 180 Peppermint trees (*Agonis flexuosa*) within Lot 4205 on Deposited Plan 208196, Kaloorup.
- (b) The Permit Holder shall monitor the survival of the planted Peppermint trees (*Agonis flexuosa*) and undertake additional planting where required ensuring at least 180 Peppermint trees (*Agonis flexuosa*) are established and maintained during the term of the Permit.

Definitions

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

fauna specialist means a person who holds a tertiary qualification specializing in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Wildlife Conservation Act 1950*; and

optimal time means the period from May to June.

Simon Weighell
A/MANAGER
CLEARING REGULATION

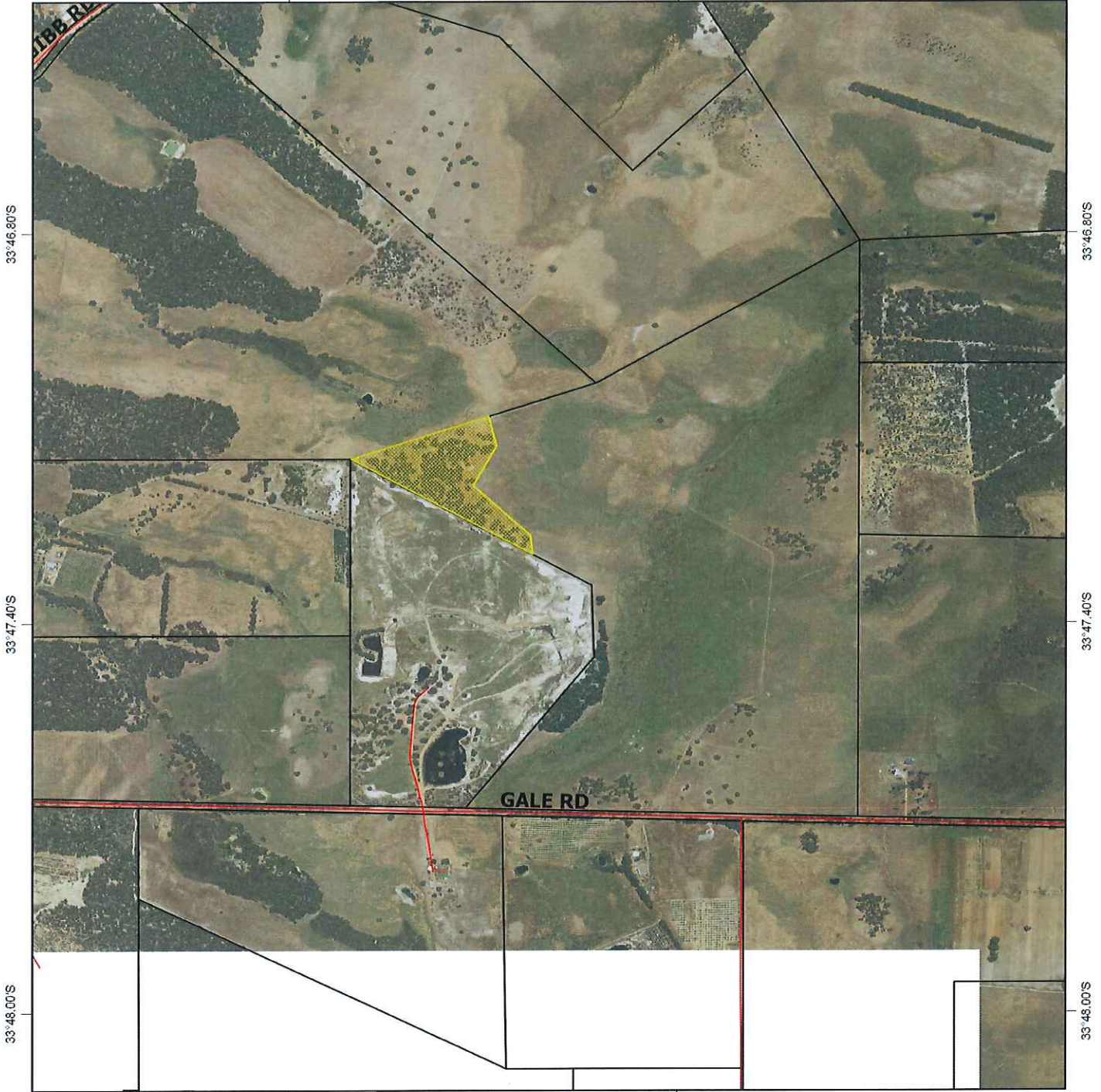
Officer delegated under section 20 of the Environmental Protection Act 1986

12 May 2016

Plan 6766/1

115°10.80'E

115°11.40'E



115°10.80'E

115°11.40'E

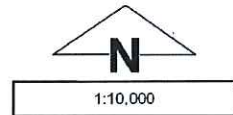
Legend

 Areas approved to clear

 Roads

 Cadastre

Virtual Mosaic (LGATE-V001)



MGA 94
Geocentric Datum of Australia 1994

S. Weighell Date *12/5/16*
Simon Weighell

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



GOVERNMENT OF
WESTERN AUSTRALIA



1. Application details

1.1. Permit application details

Permit application No.: 6766/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Mr Vincent Edwards
Mrs Sheila Edwards

1.3. Property details

Property: LOT 4205 ON DEPOSITED PLAN 208196, KALOORUP
Colloquial name:
Local Government Authority: BUSSELTON, CITY OF
DER Region: Greater Swan
DPaW District: BLACKWOOD
LDCD: SUSSEX
Localities: KALOORUP

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.6		Mechanical Removal	Extractive industry

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
The application area is mapped as the following Beard vegetation associations (Shepherd et al, 2001): 27: Low woodland; paperbark (Melaleuca sp.) 1181: Medium woodland, jarrah & <i>Eucalyptus haematoxylon</i> (Whicher Range)	The applicant proposes to clear 3.6 hectares of native vegetation within Lot 4205 on Deposited Plan 208196, Kaloorup, for the purpose of sand extraction.	Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).	The vegetation condition was assessed through a site inspection conducted by Department of Environment Regulation (DER) officers (DER, 2015).

The application area is mapped as the following Mattiske Vegetation Complex (Mattiske and Havel, 1998):

Yelverton (Yd): Woodland of *Allocasuarina fraseriana-Eucalyptus marginata* subsp. *marginata-Xylomelum occidentale-Banksia attenuata* on sandy slopes in the humid zone.

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 not likely to be at variance to this Principle**
The application is to clear 3.6 hectares of native vegetation within Lot 4205 on Deposited Plan 208196, Kaloorup, for the purpose of sand extraction.

A site inspection of the application area undertaken by the Department of Environment Regulation identified that the vegetation proposed for clearing is in a completely degraded (Keighery, 1994) condition (DER, 2015), comprising an overstorey of *Agonis flexuosa* over exotic grasses. There is no native understorey species, indicating that the application area has been historically parkland cleared and grazed (DER, 2015).

Thirty six priority flora and eleven rare flora species have been recorded within the local area (10 kilometre radius). Given the completely degraded (Keighery, 1994) condition of the understorey that is dominated by invasive exotic grasses, it is unlikely rare or priority flora will occur within the area under application. Therefore, the clearing proposed is unlikely to have an impact on the conservation status of these species.

The vegetation under application may provide suitable habitat for the western ringtail possum (WRP) (*Pseudocheirus occidentalis*) which is listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* (WC Act) and vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The vegetation proposed for clearing is not likely to provide significant habitat for this species given the vegetation is in a completely degraded (Keighery, 1994) condition, no WRP individuals, scats or dreys were identified during the site inspection (DER, 2015), and the vegetation is fragmented from other larger remnants of suitable habitat.

The closest Priority Ecological Community (PEC) to the application area is described as 'Shrublands of near permanent wetlands in creeklines of the Whicher Scarp (Whicher Scarp community G2) (Priority 1) located approximately 800 metres south west from the proposed clearing. The application area is not representative of this PEC.

Given that the vegetation proposed for clearing has been subject to significant disturbance it is not likely to hold a high level of biological diversity and the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
- DER (2015)
- Keighery (1994)

GIS Databases:
- SAC Bio Datasets (Accessed December 2015)

(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 may be at variance to this Principle

A site inspection of the application area determined that the vegetation under application consists of an overstorey of large, mature *Agonis flexuosa* (peppermint trees) which are a suitable species for western ringtail possum (WRP) (*Pseudocheirus occidentalis*) habitat (DER, 2015).

This area of vegetation has been mapped as 'WRP Habitat Suitability Class C' in the recently released WRP habitat assessment report (Parks and Wildlife, 2015a). Class C is the lowest of the WRP habitat categories capable of sustaining viable populations of WRP (Parks and Wildlife, 2015a).

The application area is fragmented from other larger remnants of Class C habitat approximately 1.3 kilometres to the west. No WRP individuals, scats or dreys were seen during a DER site inspection (DER, 2015), however, the inspection was not a targeted WRP survey and the trees under application may still be utilised by WRP.

A condition to inspect trees and relocate any WRPs prior to the clearing will mitigate potential impacts. Further, as the clearing proposed is temporary in nature, the applicant will be required to revegetate a similar sized site on the property with vegetation consistent with that under application.

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

Methodology References:
- DER (2015)
- Keighery (1994)
- Parks and Wildlife (2015a)

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

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

Eleven species of rare flora have been recorded within the local area (10 kilometre radius), with the closest species recorded approximately 285 metres west of the application area. This species preferred habitat is in low forest over heath with jarrah (*Eucalyptus marginata*), dark dryandra (*Dryandra squarrosa*) and blueboy (*Stirlingia latifolia*) (Brown et al, 1998). It is unlikely that rare flora would be present within the application area given the different vegetation type under application and the completely degraded (Keighery, 1994) condition of the understorey that is dominated by invasive exotic grasses (DER, 2015; Parks and Wildlife, 2015a).

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

Methodology References:
- Brown et al (1998)
- DER (2015)
- Keighery (1994)
- Parks and Wildlife (2015a)

GIS Databases:
- SAC Bio Datasets (Accessed December 2015)

(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

The closest threatened ecological community (TEC) is known as 'Shrublands on southern Swan Coastal Plain Ironstones (Busselton area)' federally listed as vulnerable and is located 2.3 kilometres east of the application area. The vegetation proposed for clearing is not considered to be representative of this TEC, given the different vegetation type identified within the application area.

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

Methodology GIS Databases:
- SAC Bio Datasets (Accessed December 2015)

(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 may be at variance to this Principle

The area under application is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion retains approximately 54 per cent of its pre-European vegetation extent (Government of Western Australia, 2014).

The vegetation under application is mapped as Beard vegetation associations 1181 and 27 of which there is approximately 53 and 74 per cent of their pre-European extent remaining within the Jarrah Forest bioregion, respectively (Government of Western Australia, 2014).

The application area is also mapped as Mattiske Vegetation Yelverton (Yd) Complex of which 56 per cent of its pre-European extent remains (Parks and Wildlife, 2015b).

The area under application is located within the City of Busselton, within which there is approximately 41 per cent of its pre-European extent remaining (Government of Western Australia, 2014).

The local area (10 kilometre radius) surrounding the area under application is highly cleared with approximately 10 per cent vegetation remaining.

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).

A site inspection of the application area (DER, 2015) identified the vegetation under application as being in a completely degraded (Keighery, 1994) condition and not representative of mapped vegetation types given the disturbance resulting from grazing and farming practices. However, the vegetation may provide suitable WRP habitat. Therefore, the vegetation proposed to be cleared may be a significant remnant of native vegetation within a highly cleared area.

The applicant has advised that they propose to return the application area to pasture and grazing. As the clearing is of a temporary nature, revegetation of a similar sized area on the property with vegetation consistent with that under application will be required.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Jarrah Forest	4,506,660	2,425,551	54	69
Shire*				
City of Busselton	146,478	60,212	41	69
Beard Vegetation Association in Bioregion*				
1181	9,978	5,322	53	68
27	49,878	37,050	74	80
Mattiske Vegetation Complex **				
Yd: Yelverton	2,216	1,235	56	80

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

GIS Databases:
- NLWRA, Current Extent of Native Vegetation
- Pre-European Vegetation

(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 at variance to this Principle

The closest waterbody to the application area is a minor non-perennial watercourse mapped approximately 200 metres north west of the proposed clearing which connects to the Carbunup River situated one kilometre west of the site. A minor perennial streamline traverses the south west corner to north east corner of the subject lot (DoW, 2015).

A site inspection undertaken by DER (2015) revealed that no vegetation growing in association with a watercourse is present in the application area.

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

Methodology References:
- DER (2015)
- DoW (2015)

GIS Databases:
- Hydrology, 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

The application area is mapped as soil type Tc5. Tc5 soils are described as dissected plateau at low elevation of gently undulating to low hilly relief and characterized by extensive block laterite and lateritic (ironstone) gravels; some swamps. Chief soils on slopes and undulating areas generally are hard acidic yellow mottled soils containing small to very large amounts of ironstone gravels (Northcote et al, 1960 – 1968). However, light grey sandy soils were observed as occurring within the application area during a site inspection undertaken by the DER (2015).

The application area slopes slightly towards the north west corner of the site dropping 10 metres over a distance of 200 metres. It is unlikely that water erosion would result from the proposed clearing, given the gentle slope, sandy soils under application, and annual rainfall of 800 millimetres per year.

The proposed clearing may result in short term wind erosion given there is no vegetation surrounding the application area. However, impacts are likely to be minimal given the site will be returned to pasture and grazing practices upon completion of the proposed sand extraction works and will therefore have some form of vegetative cover to address soil stabilisation.

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

Methodology References:
- DER (2015)
- Northcote et al (1960 – 1968)

GIS Databases:
- Soils, statewide
- Annual Rainfall, Statewide
- Topography

(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 is not likely to be at variance to this Principle

The closest conservation area to the application area is an un-named A Class reserve located approximately three kilometres west of the proposed clearing area. Given the distance between the two, the proposed clearing is not likely to impact upon the environmental values of the reserve.

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

Methodology GIS Databases:
- 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

The closest waterbody to the application area is a minor non-perennial watercourse and soak dam mapped approximately 200 metres north west of the proposed clearing on the neighbouring Lot 4198. This watercourse connects to the Carburnup River which is situated one kilometre west of the application area. A minor perennial streamline traverses the south west corner to north east corner of the subject lot (DoW, 2015).

The proposed clearing is not likely to increase sediment transportation via soil erosion given the gentle topography of the land, distance to the nearest watercourse, and completely degraded (Keighery, 1994) condition of the vegetation under application. Therefore, impacts to the deterioration of groundwater or surface water quality are likely to be minimal.

Groundwater salinity levels in the local area have been mapped as fresh at less than 500 milligrams per litre total dissolved solids. The proposed clearing is not likely to increase groundwater salinity.

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

Methodology

References:

- DoW (2015)
- Keighery (1994)

GIS Databases:

- Groundwater Salinity, Statewide

(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 removal of 3.6 hectares of remnant vegetation is not expected to contribute to flooding, particularly given the highly permeable sandy soils present on site.

Therefore, the clearing as proposed is not likely to be at variance to this Principle.

Methodology

GIS Databases:

- Soils, Statewide

Planning instruments and other relevant matters.

Comments

The applicant has applied to clear 3.6 hectares of native vegetation within Lot 4205 on Deposited Plan 208196, Kaloorup, for the purpose of sand extraction. The applicant has advised that the site will be returned to pasture and grazing practices following the completion of the proposed sand extraction works.

The applicant has received an extractive industry licence from the City of Busselton for a five year period commencing 13 April 2016 (DA15/0519).

The application area falls within the Busselton-Capel Groundwater Area and Geographe Bay Rivers Surface Water Area, proclaimed under the *Rights in Water and Irrigation Act 1914*. Any groundwater abstraction or taking or diversion of surface water in this proclaimed area is subject to licensing by the Department of Water (DoW, 2015). The DoW has advised that no applications are pending for the subject lot (DoW, 2015). Extractive industry licence DA15/0519 requires a minimum separation of 1 metre between the maximum extraction depth and the maximum water table depth. The DoW (2015) has advised that the applicant should contact the DoW's licensing section if they require the use of groundwater for uses such as dust suppression.

The DoW (2015) recommends that where appropriate and practicable the applicant follows the measures outlined in the DoW's 'Water Quality Protection Note No 15 - Extractive industries near sensitive water resources' (DoW, 2013) to protect water quality against degradation from the proposed land use practices.

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

No submissions from the public have been received for the proposed clearing.

Methodology

References:

- DoW (2013)
- DoW (2015)

GIS Databases:

- RIWI, surface water areas
- RIWI, groundwater areas
- Aboriginal Sites of Significance

4. References

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DER (2015) Site Inspection Report for Clearing Permit Application 6766/1. Site inspection undertaken 11 November 2015. Department of Environment Regulation, Western Australia (DER Ref: A1018181)
- DoW (2013) Water Quality Protection Note 'Extractive industries near sensitive water resources'. Western Australia. https://www.water.wa.gov.au/_data/assets/pdf_file/0015/4029/87171.pdf (Accessed 09/12/15).
- DoW (2015) Advice for Clearing Permit CPS 6766/1. Department of Water. Western Australia. (DER Ref: A993579).
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 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.
- 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.
- Parks and Wildlife (2015a) Regional advice for Clearing Permit CPS 6766/1. Department of Parks and Wildlife. Western Australia (DER Ref: A1018176).
- Parks and Wildlife (2015b) 2015 South West Forest and Swan Coastal Plain Vegetation Complex Statistics: a report prepared for the Department of Environment Regulation. Current as of March 2015. Department of Parks and Wildlife, Perth, Western Australia.
- 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.