GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number: 7302/1
File Number: DER2016/001922
Duration of Permit: From 21 January 2017 to 21 January 2019

PERMIT HOLDER
Andrew Leslie Harris.

LAND ON WHICH CLEARING IS TO BE DONE
Lot 1144 on Deposited Plan 105655, Nannup.
Lot 1075 on Deposited Plan 104810, Nannup.

AUTHORISED ACTIVITY
The Permit Holder shall not clear more than 8.36 hectares of native vegetation within the area cross hatched yellow on attached Plan 7302/1.

CONDITIONS

1. 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* and *dieback*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
(b) ensure that no *dieback* or *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:

dieback means the effect of *Phytophthora* species on native vegetation;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

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

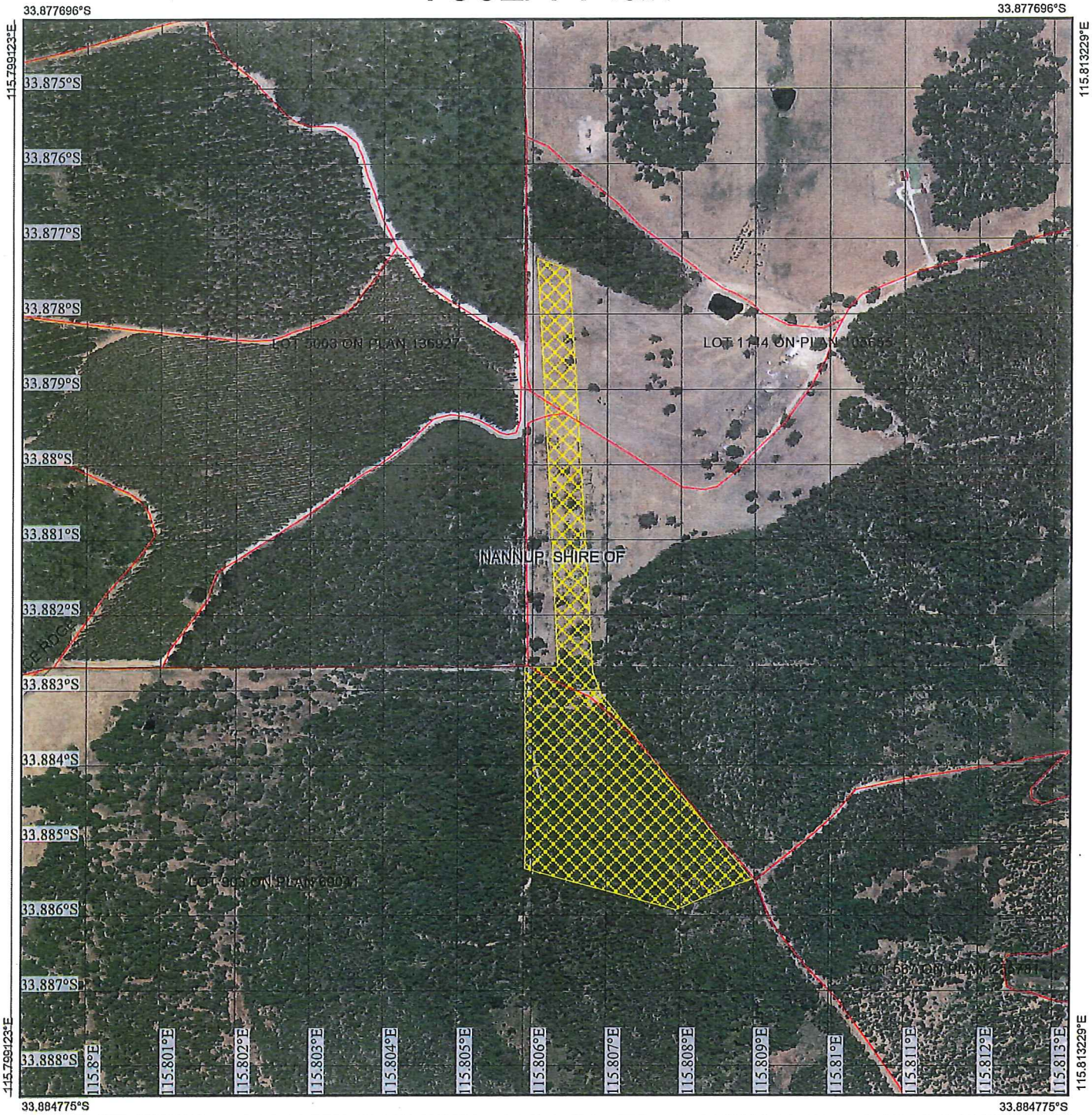
(c) not indigenous to the area concerned.

Mathew Gannaway
MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

20 December 2016

7302/1 Plan



Legend

- Roads
- Imagery
- Clearing Instruments Activities
- Local Government Authority

N

0 200m

1:6,913

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

..... Date 20/12/2016

Mathew Gannaway

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

GOVERNMENT OF WESTERN AUSTRALIA

Government of Western Australia
Department of Environment Regulation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7302/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Mr Andrew Leslie Harris

1.3. Property details

Property: LOT 1144 ON DEPOSITED PLAN 105655, NANNUP
LOT 1075 ON DEPOSITED PLAN 104810, NANNUP
Local Government Authority: NANNUP, SHIRE OF
DER Region: Greater Swan
DPaW District: BLACKWOOD
Localities: NANNUP

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
8.36		Mechanical Removal	Aircraft landing strip

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 8 December 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 not likely to be at variance to the clearing principles.

Given the proximity to remnant vegetation in good or better condition, the proposed clearing has the potential to spread weeds or dieback into surrounding vegetation in similar or better condition. The adoption of weed and dieback management measures will assist in minimising the potential impacts.

The Delegated Officer determined that the proposed clearing is unlikely to have any significant environmental impacts. Relevant State policies and other relevant policies have been taken into consideration in the decision to grant a clearing permit.

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
Broad scale vegetation mapping classifies the area as: **Beard vegetation association 3:** Medium forest; jarrah-marri (Shepherd et al., 2001). **Mattiske Vegetation Complex BT:** Mixture of open forest of *Eucalyptus marginata subsp. marginata - Corymbia calophylla* with some *Eucalyptus patens* on slopes to low open forest of *Eucalyptus rudis - Melaleuca rhaphiophylla* on the valley floors in the humid zone	The application is to clear 8.36 hectares of native vegetation within Lot 1144 on Deposited Plan 105655 and Lot 1075 on Deposited Plan 104810, Shire of Nannup, for the purpose of constructing an aircraft landing strip.	Good; Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994). To; Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	The vegetation condition and description was determined via aerial imagery and photographs provided by the applicant. The vegetation under assessment has been historically disturbed, with the northern section of the application area located within a farm paddock (degraded condition) (Keighery, 1994), while the southern section is located within regrowth jarrah and marri forest (good condition) (Keighery, 1994), which visually appears to have been historically logged.

(Mattiske and Havel, 1998).

Mattiske Vegetation Complex HR:
Tall open forest to open forest of *Eucalyptus marginata subsp. marginate - Corymbia calophylla* on lateritic uplands in per humid and humid zones. (Mattiske and Havel, 1998).

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 To be assessed to this Principle
The application is to clear 8.36 hectares of native vegetation within Lot 1144 on Deposited Plan 105655 and Lot 1075 on Deposited Plan 104810, Shire of Nannup, for the purpose of constructing an aircraft landing strip.

Aerial and photographs provided by the applicant indicate that the application area is in a degraded to good (Keighery, 1994) condition. Broad scale vegetation mapping classifies vegetation complexes within the application area as a mixture of jarrah - marri woodlands (Shepherd et al., 2001). The application area has the potential to provide suitable habitat for conservation significant fauna species, including Black Cockatoos and Western Ringtail Possum (*Pseudocheirus occidentalis*).

Parks and Wildlife at an officer level advise "the applied area is high in the landscape and is unlikely to support Western Ringtail Possums, it is although highly likely to provide foraging, breeding and roosting habitat to Black Cockatoo species" (Department of Parks and Wildlife (Parks and Wildlife), 2016).

The term Black Cockatoos collectively refers to Baudin's Cockatoo (*Calyptorhynchus baudinii*), Carnaby's Cockatoo (*Calyptorhyncus latirostris*) and Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) (Parks and Wildlife 2007-). Black Cockatoos breed in large hollow-bearing trees, generally within woodlands or forests (Commonwealth of Australia, 2012). Photographs of the application area indicate that the vegetation under assessment is not of an age to be considered significant breeding habitat.

The local area (10 kilometre radius surrounding the application area) retains approximately 97 per cent vegetative cover. Based on the availability of habitat in similar or better condition within the local area, including within the nearby state forests (Jarrahwood State Forest located approximately 1.9 kilometres away), the application area is not likely to constitute significant foraging or roosting habitat.

A total of four priority flora species have been recorded in the local area. The closest record is priority 3 species *Synaphea otiostigma* mapped approximately six kilometres west from the application area. All mapped priority flora has been recorded within a different soil and vegetation type than mapped within the application area. Parks and Wildlife, at an officer level, also consider that the application area is "unlikely to support any flora currently considered threatened" (Parks and Wildlife, 2016). Considering this, historical disturbance to the application area, limited number of recorded individuals and distance from the application area, the impact to priority flora species is considered unlikely.

There are no mapped Threatened Ecological Communities (TEC's) or Priority Ecological Communities (PEC's) within the application area or within the local area.

The disturbance caused by the proposed clearing will increase the risk of weeds and dieback being introduced into adjacent areas of remnant vegetation, in similar or better condition. Weed and dieback 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

References:
Commonwealth of Australia (2012)
Keighery (1994)
Parks and Wildlife (2007 -)
Shepherd et al. (2001)

GIS Databases:
Parks and Wildlife Tenure
SAC Bio Datasets (Accessed October 2016)
SWREL-AL

(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

Within the local area there are records of 26 conservation significant fauna species (Parks and Wildlife, 2007-). Broad scale vegetation mapping classifies vegetation complexes as a mixture of jarrah - marri woodlands (Shepherd et al., 2001), this has been confirmed via photographs provided by the applicant and is considered to be in a good to degraded (Keighery, 1994) condition.

The application area has the potential to provide suitable habitat for conservation significant fauna species, including Black Cockatoos and Western Ringtail Possum. Parks and Wildlife at an officer level advise "the applied area is high in the landscape and is unlikely to support Western Ringtail Possums, it is although highly likely to provide foraging, breeding and roosting habitat to Black Cockatoo species" (Parks and Wildlife, 2016).

Black Cockatoos breed in large hollow-bearing trees, generally within woodlands or forests (Commonwealth of Australia, 2012). Photographs provided by the applicant indicate that trees under application may not be a suitable size to provide breeding habitat for black cockatoos (karri, marri or jarrah species with a diameter at breast height (DBH) greater than 50 centimetres, or salmon gum and wandoo with a DBH greater than 30 centimetres) (Commonwealth of Australia, 2012) or of an age that could produce suitable hollows, and therefore do not currently provide suitable breeding habitat.

The local area retains approximately 97 per cent vegetative cover. Based on the availability of habitat in similar or better condition within the local area, including within the nearby state forests (Jarrahwood State Forest located approximately 1.9 kilometres away), the application area is not likely to constitute significant foraging or roosting habitat.

Parks and Wildlife advise "clearing should be conducted outside of the annual breeding season (October to May) for Black Cockatoo species. Where clearing is to be undertaken during the breeding season, all trees containing suitable hollows should be assessed for cockatoo nests prior to clearing" (Parks and Wildlife, 2016).

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

Methodology

References:
Commonwealth of Australia (2012)
Keighery (1994)
Parks and Wildlife (2007 -)
Parks and Wildlife (2016)
Shepherd et al., (2001)

GIS Databases:
Parks and Wildlife Tenure
SWREL-AL

(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

According to available datasets there is no declared rare flora species recorded within the application area. The closest mapped rare flora species is approximately 10 kilometres from the application area, the species is mapped as occurring within a different soil and vegetation type. Parks and Wildlife, at an officer level, also consider "the vegetation proposed for clearing will be jarrah, marri forest, it is unlikely to support any flora currently considered threatened" (Parks and wildlife, 2016).

Based upon the distance of recorded rare flora to the application area and historical disturbance, it is considered unlikely for declared flora to be present in the application area (Western Australian Herbarium, 1998-).

The proposed clearing is not likely to be at variance to this clearing Principle.

Methodology

References:
Parks and Wildlife (2016)
Western Australian Herbarium (1998-)

GIS Databases:
SAC Bio Datasets (Accessed November 2016)

(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

There are no mapped TEC's within the application area or within the local area. Considering this and that the application area has been subject to historical disturbance, it is considered unlikely vegetation communities are

representative of a TEC.

The proposed clearing is not likely to be at variance to this clearing Principle.

Methodology GIS Databases:
SAC Bio Datasets (Accessed November 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 not likely to be at variance to this Principle

There is approximately 97 per cent native vegetation remaining within the local area, this includes large remnants within nearby state forest and conservation areas.

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

The bioregion, Shire and mapped vegetation associations are all above the minimum 30 per cent vegetation threshold, except for Mattiske vegetation association BT, which retains approximately 21 per cent of pre-European vegetation (Government of Australia, 2015). A review of applicant supplied photographs indicated that the vegetation under assessment may not be representative of this complex.

The application area does not contain significant habitat for flora and fauna of conservation significance and is not within an extensively cleared landscape, therefore it is unlikely to be considered a significant remnant.

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

	Pre-European (ha)	**Current Extent** (ha)	**Remaining** (%)	**Extent in Parks and Wildlife Managed Lands** (%)
IBRA Bioregion*				
Jarrah Forest	4,506,660.26	2,422,782.95	53	69
Shire*				
Nannup, Shire of	305,253.55	256,383.42	83	91
Beard Vegetation Association in Bioregion*				
3	2,390,591.42	1,611,061.04	67	80
Mattiske Vegetation Association in Bioregion*				
HR	32,249.57	23,781.15	73	67
BT	21,477.74	4,659.62	21	6

Methodology References:
Commonwealth of Australia (2001)
Government of Australia (2015)

(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

The majority of the application area is located upon a topographic plateau (approximately 265 metres Australian Height Datum), with the south western portion of the clearing footprint sloping towards a valley. Mapped surface water bodies are located to the south and east of the application area within valley floors. Broad scale vegetation mapping does not classify vegetation within the application area as considered to be associated with a watercourse or a wetland.

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

Methodology GIS Databases:
Hydrography, linear
Hydrography, hierarchy
RIWI layer
PDWSA layer
CAWS layer
Topographic Contours, Statewide

(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

Based on land system mapping by the Department of Agriculture and Food Western Australia (DAFWA) the application area occurs within the Hester sandy ridges and Bridgetown steep slopes phase subsystems, with soils comprising of sandy gravels and loamy earths. The Hester sandy ridges phase is mapped as 30 – 50 per cent of the map unit having a high to extreme wind erosion risk and 10 – 30 per cent of the map unit having a high to extreme water erosion risk. The Bridgetown steep slopes phase is mapped as less than three per cent of the map unit having a high to extreme wind erosion risk and greater than 70 per cent of the map unit having a high to extreme water erosion risk.

Given that the majority of the application area is located on a flat, topographic plateau, no surface water bodies are located within the application area and given the extensive coverage of native vegetation retained upon the surrounding slopes, the clearing is considered unlikely to cause appreciable land degradation.

The proposed clearing is not likely to be at variance to this clearing Principle.

Methodology

GIS Databases:
Hydrography, linear
Hydrography, hierarchy
Topographic Contours, Statewide
SAC Biodatasets

(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

A number of conservation areas have been recorded within the local area, the closest being Jarrahwood State Forest located approximately 1.9 kilometres west of the application area.

No ecological linkages are expected to be disrupted as a result of the proposed clearing.

Given the distance between the application area and National Park, it is unlikely the proposed clearing will impact on the conservation values.

The proposed clearing is not 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 proposed clearing has the potential to increase sedimentation within surrounding tributaries via surface water transport. However, provided that the majority of the application area is located on a flat, topographic plateau, no surface water bodies are located within the application area and given the extensive coverage of native vegetation retained upon the surrounding slopes, the clearing is considered unlikely to cause deterioration of surface water bodies.

Groundwater within the application area is mapped as 500 – 1,000 milligrams per litre. Proposed clearing is not considered to result in deterioration of quality.

The proposed clearing is not likely to be at variance to this clearing Principle.

Methodology

GIS Databases:
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 soils within the application area are mapped as sandy gravels and loamy earths. These soil types are typified by high permeability. Furthermore, both land units are mapped as less than three per cent of map resulting in moderate to high flood risk of moderate to very high waterlogging risk. s such, the proposed clearing is not considered to increase the incidence or intensity of flooding.

The proposed clearing is not likely to be at variance to this clearing Principle.

Methodology

GIS Databases:

SAC Biodatasets (Accessed November 2016)

Planning instruments and other relevant matters.

Comments

The application was advertised in *The West Australian* newspaper on 7 November 2016 by the Department of Environment Regulation inviting submissions from the public within a 21 day period. No submissions were received in relation to this application.

Shire of Nannup reviewed the application and advised that the proposal is "consistent with the Shire of Nannup's Local Planning Scheme No. 3 and no development approvals are required for the activities described" (Shire of Nannup, 2016).

There are no Aboriginal Sites of Significance recorded in the application area.

Methodology

References:
Parks and Wildlife (2016)
Shire of Nannup (2016)

4. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.

Department of Parks and Wildlife (Parks and Wildlife) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: http://naturemap.dpaw.wa.gov.au/. Accessed November 2016.

Department of Parks and Wildlife (2016) CPS 7302/1 Department of Parks and Wildlife Advice Request (DER Ref: A1338213)

Government of Western Australia (2015) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Parks and Wildlife, Perth.

Heddle, 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.

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.

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 Nanup (2016) Application to clear native vegetation – Mr Andrew Harris (DER Ref:A1323936).

Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. http://florabase.dpaw.wa.gov.au/ (Accessed November 2016).