

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number:8347/1File Number:DWERVT2193Duration of Permit:From 6 October 2019 to 6 October 2021

PERMIT HOLDER

Mr David Walters

LAND ON WHICH CLEARING IS TO BE DONE

Lot 12843 on Deposited Plan 203111, Crowea Lot 12076 on Deposited Plan 203111, Crowea

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than clear 15 hectares of native vegetation within the areas cross hatched yellow on attached Plan 8347/1.

CONDITIONS

1. 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.

2. Type of clearing authorised

To the extent authorised under this Permit, the Permit Holder may undertake the following activities within the areas cross-hatched yellow on Plan 8347/1

- (a) clearing and burning of *understorey*;
- (b) thinning of Karri (Eucalyptus diversicolor) trees; and
- (c) culling and burning of unsaleable trees.

3. Avoid, minimise and reduce the impacts and extent of 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.

4. Weed control and Dieback

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.

5. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a GPS unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares); and
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 3 of this Permit.
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 4 of this Permit.

6. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 5 of this Permit, when requested by the *CEO* or delegated officer

DEFINITIONS

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

CEO means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.

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

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;

thinned/ing describes a silvicultural activity to promote the growth of selected trees by removing competing trees;

understorey means, for the purpose of this Permit, all native vegetation that does not include trees to be *culled* or subject to harvest.

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 Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

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Ryan Mincham MANAGER NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

6 September 2019

CPS 8347/1, 6 September 2019

Plan 8347/1

116.109673°E



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



116.130268°E



1. Application details							
1.1. Permit application	n details						
Permit application No.:	8	347/1					
Permit type:	A	Area Permit					
1.2. Applicant details							
Applicant's name:		Ir David Walters					
1.3 Property details							
Property:		ot 12843 on Deposited Plan 2031	11, Crowea				
	L.	Lot 12076 on Deposited Plan 203111, Crowea					
Local Government Authority:		Manjimup, Shire of					
DBCA District:	D	Donnelly					
Localities:	D	Diamond Tree					
1.4. Application							
Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:				
15		Mechanical Removal	Timber Harvesting				
1.5. Decision on appli	cation						
Decision on Permit Appli	cation: G	iranted					
Decision Date:	6	September 2019					
Reasons for Decision:	Т	he clearing permit application wa	is received on 29 January 2019 and has been assessed				
	a	ection 510 of the <i>Environment</i>	<i>Protection Act 1986</i> . It has been concluded that the				
	p	roposed clearing is not, or not like	ly to be at variance to the clearing principles.				
	_						
	Т	he Delegated Officer also detern reeds and dieback being introduc	nined that the proposed clearing may increase the risk of				
	d	ieback management measures w	Il minimise impacts to adjacent native vegetation.				
		Ç					
Site Information							
Clearing Description:	The appl	ication is to clear up to 15 hectare	s of native vegetation within a 30 hectare clearing footprint				
	harvestir	of 12843 and Lot 12076 on Dep	osited Plan 203111, Crowea, for the purpose of timber				
	na vooti	.9.					
Vegetation Description:	The app	lication area is mapped as three l	Aattiske vegetation complexes:				
	slopes w	'S1' Granite Valleys described as tall open forest of <i>Eucalyptus diversicolor-Corymbia calophylla</i> on					
	perhumi	perhumid zones (2.6 hectares of the clearing footprint);					
	'Vh3' Gr	'Vh3' Granite Valleys described as tall open forest of Eucalyptus diversicolor-Eucalyptus guilfoylei					
	perhumi	d zones (5.8 hectares of the clear	ing footprint) and:				
		Υ.					
	'A' Ango	'A' Angove described as open forest of Eucalyptus marginata subsp. marginata-Banksia ilicifolia-					
	Nuytsia :	Nuytsia tioribunda with some Eucalyptus diversicolor on gently sloping sandy terrain in hyperhumid and perhumid zones (21.6 bectares of the clearing footprint) (Matticke and Havel, 1998)					
	and pon						
	The vegetation under application is predominately Karri (Eucalyptus diversicolor) regrowth forest						
	With som	le Marri (<i>Corymbia calophylla</i>) wit	n sections of midstorey of <i>Agonis flexuosa</i> (photo 2) in the				
	area (DV	VER, 2019).					
	-						
	inspectic	dition and structure of the veget	ation within the application area was obtained via a site				
	on 22 Fe	ebruary 2019 (DWER, 2019).					
Vegetation Condition:	Good: V	egetation structure altered: obvior	us signs of disturbance (Keighery, 1994)				
	To		,,				
	Complet	ely Degraded; Structure severe	ly disturbed; regeneration to good condition requires				
	Intensive	management (Keignery, 1994).					

The site inspection determined that the majority of the vegetation under application was in a degraded (Keighery, 1994) condition which is attributed to the historical disturbance to the area from past clearing activities and cattle grazing.

Soil and Landform Type:

: The application area is mapped within the following land subsystems (Schoknecht et al., 2004; DPIRD, 2017):

- Angove Subsystem is described as gently sloping sandy terrain; slight dissections. Humus podzols on broad crests; Kangaroo Grass sedgeland, Teatree heath. Sandy yellow duplex soils in shallow dissections; Jarrah woodland (80% of the application area);
- Minor Valleys S1 subsystem is described as Valleys in granitic terrain, narrow swampy floor; <20 m relief. Gravelly yellow duplex soils on smooth flanks; Jarrah-Marri-Karri forest. Peaty soils on narrow floor; Wattle low forest (5% of the application area); and
- Minor Valleys S3 subsystem is described as Valleys in granitic areas; 20m relief; rocky slopes; terrace. Yellow duplex soils on slopes; Jarrah-Marri-Yellow Tingle forest. Deep sands on terrace; Wattle-Paperbark low forest (15%)

Comment:

The local area referred to in this assessment is defined as the area within a 10 kilometre radius of the application area. Aerial imagery indicates that the local area retains approximately 85 per cent native vegetation cover.

Figure 1: Map of application area



Figure 2: Photographs of vegetation within the application area



Photo 1: Representative vegetation within the application area.



Photo 2: Representative vegetation within the application area.

2. Assessment of application against clearing principles

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

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

The application is to clear up to 15 hectares of native vegetation within a 30 hectare footprint for the purpose of timber harvesting. As discussed in Section 2, the vegetation within the application area comprises predominately of a Karri regrowth forest (DWER, 2019).

According to available databases, six priority flora species and no threated flora species have been recorded within the local area. Based on the vegetation and soil types recorded within the application area, it is unlikely the application area would provide habitat for any of the priority flora species recorded within the local area. In determining this, it was noted that the application area is in a predominantly degraded (Keighery, 1994) condition and had large areas throughout which comprised of no native vegetation ground cover as indicated within Photo 1. It was also noted that the six priority flora species preferred habitat associated with wet areas (creek beds, winter wet swamps and black peat soil) which are not present within the application area. Threatened flora are discussed further under Principle (c).

According to available databases, the following fauna species specially protected under the *Biodiversity Conservation Act 2016* have been recorded within the local area: *Calyptorhynchus banksii subsp. naso* (Forest Red-tailed Black-Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Dasyurus geoffroii* (Chuditch) *Galaxiella munda* (Western Mud Minnow) *Galaxiella nigrostriatal* (Black-stripe minnow), *Leipoa ocellata* (Malleefowl), *Lepidogalaxias salamandroides* (Salamanderfish) *Myrmecobius fasciatus* (Numbat), *Nannatherina balstoni* (Balston's Pygmy Perch) *Westralunio carteri* (Carter's Freshwater Mussel), *Pseudocheirus occidentalis* (Western Ringtail Possum) and *Setonix brachyurus* (Quokka). Whilst the above mentioned species are known to occur in the local area, the application area is unlikely to provide significant habitat for these species. Fauna habitat and conservation significant fauna species are discussed under Principle (b).

According to available databases, there have been no priority ecological communities (PEC) recorded within the local area. The closest known PEC is the aquatic invertebrate assemblages of granite outcrops associated with Burnside Batholith (formerly Southern granite pool community (Muirillup Rock) Northcliffe), located 15.4 kilometres from the application area. The application areas is not representative of this PEC.

Given the above, the application area is unlikely to comprise a high level of biological diversity. The proposed clearing is not likely to be at variance to this Principle.

(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.

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

According to available databases, nine fauna species specially protected under the *Biodiversity Conservation Act 2016*, one fauna species protected under international agreement and five priority fauna have been recorded within the local area (DBCA, 2007-). Based upon the application area comprising of a Karri regrowth forest with some Marri over a midstorey of *Agonis flexuosa*, it is considered that the application area could provide habitat for black cockatoos and the western ringtail possum (WRP), however the vegetation is not considered significant habitat for these species as discussed below.

As noted under Principle (a), the Western Mud Minnow, Black-stripe Minnow, Salamanderfish, Pygmy Perch and Carter's Freshwater Mussel are known to occur within the local area. The application area does not comprise of significant habitat for these species noting they are aquatic species and there no watercourses or wetlands that occur within the application area. It is also considered that the application area does not comprise of significant habitat for Chuditch, Malleefowl, Numbat and Quokka based on their required habitat not being restricted to the application area, with a large amount of similar vegetation of equal or better

quality remaining in the local area (approximately 90 per cent remains in the local area). It was also noted during the site inspection that the application areas comprised of very little native vegetation ground cover with the condition of the vegetation being predominately degraded (Keighery, 1994) (DWER, 2019). This type of habitat is not likely to be significant for ground dwelling fauna in the local area.

Black cockatoo species nest in hollows in live or dead trees of tuart, jarrah, marri, *Eucalyptus diversicolor* (karri), *Eucalyptus wandoo* (wandoo), *Eucalyptus salmonophloia* (salmon gum), *Eucalyptus rudis* (flooded gum), *Eucalyptus loxophleba* (York gum), *Eucalyptus accedens* (powder bark), *Eucalyptus megacarpa* (bullich) and *Eucalyptus patens* (blackbutt) (Commonwealth of Australia, 2012). Nesting trees are defined as "trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, suitable DBH is 500 millimetres, however, for salmon gum and wandoo, suitable DBH is 300 mm (Department of Sustainability, Environment, Water, Population and Communities, 2012). Black cockatoos have a preference for foraging habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceae plant species such as *Banksia* sp., *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012).

A site inspection of the application area identified a number of karri and some marri trees to be of an appropriate size to develop hollows for breeding purposes for black cockatoos (DWER, 2019). It was noted that some of the marri trees observed contained hollows, however, it could not be determined whether they were of a suitable dimension to be utilised for breeding purposes. Whilst some marri trees within the application area have been identified as potential breeding trees, the application is for timber harvesting of karri trees and the applicant has made a commitment that no marri will be cleared. A condition on the permit has been imposed that reflects the commitment that marri trees be retained. The site inspection also noted that a limited number of karri trees within the application area are also of an appropriate size to provide potential breeding habitat for black cockatoos. However, the trees are unlikely to contain hollows as the majority of the trees are regrowth, tall and slender in nature as indicated within photo 2 (DWER, 2019). The slender nature of the upperstorey of the karri trees is likely to be attributed to the trees occurring within close proximity of one another.

Whilst the application area provides foraging habitat for black cockatoos, it is considered to be of a low quality based upon the vegetation within the application area comprising karri and regrowth. Common food items for foraging for black cockatoos does not include karri (Commonwealth of Australia, 2012). Additionally, the local area contains large amounts of similar or better quality foraging habitat, with a large portion of this being within the nearby Warren State Forest and Hawke National Park. Noting this, it is unlikely the application area comprises significant habitat for black cockatoos.

Although the application area consists of some areas of *Agonis flexuosa*, a species which provides suitable habitat for the western ringtail possum, there were no signs (scats or dreys) of possums occurring within the application area during the site inspection. It was also noted that the *Agonis flexuosa* trees present were sporadic throughout the application area, with these areas consisting of no mid-storey (DWER, 2019). It was further noted that the *Agonis flexuosa* trees were relatively small in size, slender in form and lacking dense leaf foliage. Habitat critical to survival comprises forests with limited anthropogenic disturbance (unlogged or lightly logged, and a low intensity and low frequency fire history), that are intensively fox-baited and have low indices of fragmentation (Parks and Wildlife, 2017). Additionally, reproductive output is related to habitat quality. Areas of habitat with low foliage nitrogen content tend to result in lower numbers of births (Parks and Wildlife, 2017). Noting the previous logging in the applied area and the lack of leaf foliage, it is unlikely the application area provides significant habitat for WRP. As with black cockatoos, the local area contains large amounts of similar or better quality habitat for WRP. Given the application proposes the clearing of karri trees only, it is unlikely the application will impact on significant habitat for WRP.

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

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

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

According to available databases, no threatened flora species have been recorded within the local area. The closest known record is *Kennedia glabrata* approximately 14.5 kilometres from the application area.

Kennedia glabrata favours granite outcrops within heathland vegetation consisting of *Acacia sp.* and *Hakea sp.* (WA Herbarium, 1998). The vegetation type identified during the site inspection is not the preferred habitat for *Kennedia glabrata*. Noting this, the application area is not likely to contain suitable habitat for *Kennedia glabrata*.

Noting the vegetation type within the application area and the distance of the threatened flora species to the application area, the vegetation is not likely to include, or be necessary for the continued existence of threatened flora including the abovementioned conservation significant species.

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

(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.

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

According to available databases, no state listed threatened ecological communities (TEC) are known to occur within the local area. The closest TEC is the 'Scott Ironstone Associations' located approximately 67 kilometres west of the application area.

Noting the vegetation type within the application area and the distance to the closest known TEC, the application area is unlikely to comprise the whole or part of, or be necessary for the maintenance of a TEC.

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

(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.

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

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).

As indicated in Table 1, the remaining extents of native vegetation within the bioregion, local government authority and mapped vegetation complexes are above the 30 per cent threshold.

Aerial imagery indicates that the local area retains approximately 90 per cent native vegetation cover, with a large proportion of this vegetation occurring within Department of Biodiversity Conservation and Attractions (DBCA) managed lands.

Noting the vegetation extents, the application area is unlikely to be significant as a remnant within an extensively cleared area. The proposed clearing is not likely to be at variance to this Principle.

Table 1: Vegetation extents

	Pre-European	Current Extent	Remaining	Current Extent in DBCA Managed Lands
	(ha)	(ha)	(%)	(%)
IBRA Bioregion*				
Warren	833,985	659,438	79	85.5
Local government authority*				
Shire of Manjimup	697,368	586,344	84	94
Mattiske Vegetation Complex in Bioregion **				
A:	39,698	34,737	87.5	79
S1:	25,606	21,661	84.5	76
Vh3:	5,468	3,982	73	54

Government of Western Australia. (2018a)* Government of Western Australia. (2018b)**

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

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

According to available databases, there are no wetlands or watercourses mapped within the application area. A minor, perennial watercourse is mapped approximately 15 metres from the application area. The watercourse is likely to be a tributary of the nearby Dombakup Brook which occurs 40 metres from the application area. A site inspection did not identify any of the vegetation within the application area to be associated to the watercourses (DWER, 2019). The site inspection did not record any wetlands within the application area (DWER, 2019).

Noting the above, the vegetation under application is not growing in, or in association with an environment associated with a watercourse or wetland.

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

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

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

As discussed in Section 2, the application area is located within three land subsystems (Schoknecht et al., 2004; DPIRD, 2017). The following land degradation risk categories that apply to these subsystem are;

Risk categories	Angove Subsystem (80 % Application Area)	Minor Valleys S1 (5 % Application Area)	Minor Valleys S3 (15 % Application Area)
Wind erosion	30-50% of map unit has a	10-30% of map unit has a	<3% of map unit has a
	high to extreme water	high to extreme water	high to extreme water
	erosion risk	erosion risk	erosion risk

Water erosion	3-10% of map unit has a	3-10% of map unit has a	30-50% of map unit has a
	high to extreme wind	high to extreme wind	high to extreme wind
	erosion risk.	erosion risk.	erosion risk.
Salinity	30-50% of map unit has a	30-50% of map unit has a	30-50% of map unit has a
-	moderate to high salinity	moderate to high salinity	moderate to high salinity
	risk or is presently saline	risk or is presently saline	risk or is presently saline
Flood risk	<3% of the map unit has	<3% of the map unit has	<3% of the map unit has
	a moderate to high flood	a moderate to high flood	a moderate to high flood
	risk	risk	risk
Water logging	50-70% of map unit has a	10-30% of map unit has a	<3% of map unit has a
	moderate to very high	moderate to very high	moderate to very high
	waterlogging risk	waterlogging risk	waterlogging risk

Noting the above figures, the greatest land degradation risk associated with the proposed clearing is increased waterlogging, with 50-70 per cent of the map unit having a moderate to very high waterlogging risk. The application area is predominately in a degraded (Keighery, 1994) condition (DWER, 2019), and has been subject to a previous disturbance through past timber harvesting and historically grazing. Noting this, the purpose of the application and that the local area retains approximately 90 per cent of native vegetation cover of which a large amount of this resides in conservation estate, the proposed clearing is unlikely to increase waterlogging in the local area.

Given the above, the proposed clearing is unlikely to cause appreciable land degradation. The proposed clearing is not likely to be at variance to this Principle.

(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.

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

According to available datasets, a number of conservation areas have been recorded within the local area, most notably the Warren State Forest which is mapped approximately 760 metres east of the application area and the Hawke National Park located approximately 405 metres west of the application area. Noting distances between the application area and known conservation areas, the proposed clearing is unlikely to impact on the nearby conservation areas through the spread of weeds or dieback. Although there is unlikely to be impacts to conservation areas from the proposed clearing, the disturbance caused by the proposed clearing is likely to increase the risk of weeds and dieback being introduced into adjacent areas of remnant vegetation. Weed and dieback management practices will assist in mitigating this risk.

Although the application area is between two conservation areas, the application area does not act as a restricted corridor to facilitate the movement of fauna across the landscape. A minimum of 15 hectares of native vegetation will remain in the clearing footprint and there is an intact vegetation linkage that connects the Warren State Forest and Hawke National Park north of the application area.

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

(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.

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

As discussed under Principle (f), no watercourses or wetlands occur within the application area.

As discussed under Principle (g), 30-50 percent of map unit in the application area has a moderate to high salinity risk or is presently saline. Noting the extent of the proposed clearing and the absence of watercourses or wetlands within the application area, the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.

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

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Proposed clearing is not at variance to this Principle

As discussed under Principle (f), no watercourses or wetlands occur within the application area. Noting this and the permeable nature of the soils, the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding.

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

3. Planning instruments and other relevant matters.

The Shire of Manjimup (2019) has advised the following;

- no objection to the application and that there are no planning or other matters which would affect the proposal;
 - the land is zoned by Local Planning Scheme No. 4 as "Priority Agriculture" and planning approval for clearing of vegetation is not required; and

the purpose (timber harvesting) does not require local government planning approval.

The application was advertised on the Department of Water and Environmental Regulation's website on 12 March 2019 for a 14 day public submission period. Two submissions were received during this period.

The first submission expressed no objection to the area being thinned but objected to the whole area being cleared as there is a need for trees to be retained for the use of animals (Submission, 2019a). In determining to grant the permit, the Delegated Officer noted that the clearing footprint is 30 hectares of which the applicant has applied for to clear a maximum of 15 hectares. As a result, there will be vegetation that is retained for use by fauna in the local area.

The second submission raised concerns that the clearing permit application was not supported by biological information that could be meaningfully reviewed to enable the conservation values to be evaluated (Submission, 2019b). In determining to grant the permit, the Delegated Officer was satisfied with the assessment based on available information sources that environmental impacts as a result of the proposed clearing were minimal and did not require the applicant to provide further biological information (surveys).

No registered Aboriginal Sites of Significance occur within the application area.

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. Department of Sustainability, Environment, Water, Populations and Communities, Canberra.
- Department of Biodiversity Conservation and Attractions (DBCA) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: http://naturemap.dpaw.wa.gov.au/. Accessed June 2019
- Department of Parks and Wildlife (2017). Western Ringtail Possum (Pseudocheirus occidentalis) Recovery Plan. Wildlife Management Program No. 58 Western Australia Department of Parks and Wildlife February 2017.
- Department of Primary Industries and Regional Development (2017). NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: (accessed June 2019)
- Department of Water and Environmental Regulation (2019). Site Inspection Report for Clearing Permit Application CPS 8347/1 Mr David Walters. (DWER Ref:A1809954)
- Department of Sustainability, Environment, Water, Population and Communities (2012). Referral guidelines for Carnaby's cockatoo (Calyptorhynchus latirostris), Baudin's cockatoo (Calyptorhynchus baudinii) and the forest red-tailed black cockatoo (Calyptorhynchus banksii naso). <u>http://www.environment.gov.au/system/files/resources/895d4094-af63-4dd3-8dff-ad2b9b943312/files/referral-guidelines-wa-black-cockatoo.pdf</u>

Government of Western Australia. (2018a). 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity and Attractions, Perth

- Government of Western Australia. (2018b). 2017 South West Vegetation Complex Statistics. Current as of October 2017. WA Department of Biodiversity, Conservation and Attractions, Perth, <u>https://catalogue.data.wa.gov.au/dataset/dbca</u>
- 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.
- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.
- Shire of Manjimup (2019) Advice received in relation to Clearing Permit Application CPS 8347/1 Mr David Walters. DWER Ref:A1777107

Submission (2019a). Submission received in relation to Clearing Permit Application CPS 8347/1 (DWER Ref:A1771540).

Submission (2019b). Submission received in relation to Clearing Permit Application CPS 8347/1 (DWER Ref:A1775989).

GIS Databases: Aboriginal Sites of Significance DBCA Estate Groundwater salinity Hydrography, linear Remnant vegetation SAC bio datasets (accessed June 2019) Soils, Statewide Topographic contours Augusta to Walpole Wetlands