



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

### PERMIT DETAILS

Area Permit Number: 9034/1  
File Number: DWERVT6439  
Duration of Permit: 22 November 2020 to 22 November 2022

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 131 on Deposited Plan 216053, Margaret River  
Barret Street Road reserve (PIN 1165525), Margaret River  
Unnamed Road reserve (PINs 1165525 and 1165520), Margaret River

### PERMIT HOLDER

Shire of Augusta Margaret River

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.87 hectares of native vegetation within the area cross-hatched yellow on attached Plan 9034/1.

### CONDITIONS

#### 1. 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.

#### 2. Weed and dieback 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 *dieback* and *weeds*.

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

#### 3. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner from south to north to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

#### 4. 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 Global Positioning System (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);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 1 of this Permit; and
- (e) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 2 of this Permit.
- (f) direction of clearing undertaken in accordance with condition 3 of this Permit.

## 5. Reporting

The permit holder must provide to the *CEO* the records required under condition 4 of this permit when requested by the *CEO*.

## 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;

**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.



Mathew Gannaway  
MANAGER  
NATIVE VEGETATION REGULATION

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

30 October 2020



# Plan 9034/1

115°4'40.800"E

115°4'48.000"E

115°4'55.200"E



## Legend

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

0 50 100 m



1:3000

*Mathew Gannaway*

Mathew  
Gannaway  
2020.10.30  
09:26:55 +08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA





# Clearing Permit Decision Report

## 1. Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9034/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	Shire of Augusta- Margaret River
<b>Application received:</b>	04 September 2020
<b>Application area:</b>	0.87 hectares
<b>Purpose of clearing:</b>	Bushfire hazard reduction
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Barret Street Road reserve (PIN 1165525) Unnamed Road reserve (PINs 1165525 and 1165520) Lot 131 on Deposited Plan 216503
<b>Location (LGA area/s):</b>	Shire of Augusta-Margaret River
<b>Localities (suburb/s):</b>	Margaret River

### 1.2. Description of clearing activities

The vegetation applied to be cleared is 0.87 hectares in area (see Figure 1, Section 1.5).

The application is to parkland clear vegetation to reduce the bush fire risk of the adjacent houses. The Shire of Augusta Margaret Rivers Bushfire Management Plan has identified the area as having an extreme bushfire risk rating.

The method of clearing is to be completed with a small machine fitted with a mulching head.

### 1.3. Decision on application and key considerations

<b>Decision:</b>	Granted
<b>Decision date:</b>	30 October 2020
<b>Decision area:</b>	0.87 hectares (ha) of native vegetation, as depicted in Section 1.5, below.

### 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 4 September 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix C), additional information provided by the applicant (see Appendix A), site characteristics (see Appendix B), relevant datasets (see Appendix F), photos of the application area (see Appendix E), and any other matters considered relevant to the assessment (see Section 3).

In particular, the Delegated Officer has determined that:

- The proposed clearing may increase the spread of weeds and dieback into adjacent vegetation (see Section 3.2.1). To minimise this risk, a condition has been placed on the permit requiring the implementation of weed and dieback management practices.
- The proposed clearing may impact individuals of terrestrial fauna species. To minimise this risk, a condition has been placed on the permit requiring the clearing to progress in a slow and controlled manner working toward the waterbody, to encourage the movement of fauna species into the adjacent vegetation.
- The applicant has suitably demonstrated avoidance and minimisation measures (see Section 3.1). The Delegated Officer also took into consideration the purpose of the clearing is to reduce bushfire risk of the houses adjacent to the vegetation.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that given the small area of the proposed clearing and the management measures implemented, the proposed clearing is not likely to lead to an unacceptable risk to the environment.

1.5. Site map



Figure 1. Map of the application area.

The area cross-hatched yellow indicate the area authorised to be cleared under the granted clearing permit.

## 2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. the precautionary principle;
2. the principle of intergenerational equity; and
3. the principle of the conservation of biological diversity and ecological integrity;

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

## 3. Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The applicant advised the proposed clearing would consist of parkland clearing only and that trees with a base diameter of 150mm and greater would not be removed. This adequately demonstrated that all reasonable efforts had been taken to avoid and minimise potential impacts of the clearing on environmental values.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

### 3.2. Assessment of environmental impacts

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix B) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix C.

This assessment identified that the clearing may pose a risk to the environmental value(s) of biological values, and conservation areas, and that these required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

#### 3.2.1. Environmental value: biological values (flora) – Clearing Principle (a)

**Assessment:** The application area contains vegetation which may provide suitable habitat for three species of priority flora, namely *Gahnia sclerioides* (P4), *Gastrolobium formosum* (P3) and *Pultenaea pinifolia* (P3). This is based on the habitat preferences of these species and the mapped and observed characteristics of the vegetation and soil within the application area.

*Gahnia sclerioides* is known from 27 records, some of which have occurred within similar vegetation and soil types to the application area. The species has vast range and multiple populations, two of which are within a one-kilometre radius of the application area.

*Gastrolobium formosum* is known from 39 records, seven of which are within the local area. The species is known to inhabit creek lines and open woodlands and has been recorded within similar vegetation types to those represented in the application area.

*Pultenaea pinifolia* is known from 43 records, one of which occurs near the application area. Other records of this species have been found on similar soil and vegetation types. The species has been located growing in association with waterbodies but also within dense understory outside of riparian areas.

Priority 3 flora species are species that are known from several locations, and the species do not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

Priority 4 flora species are species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons.

It is noted that records of the three species above have been recorded within National Parks within the local area. In addition to this, the remaining vegetation surrounding the application area is considered to be in better condition than that of the application area and is considered to provide habitat for the flora species listed above. If found within the application area, the occurrence of these species would not likely be deemed significant.

The vegetation within the application area includes areas that appear to have become dominated by bracken fern (*Pteridium sp.*). Given this, it is considered less likely that the priority species listed above would occur within the application area.

Outcome: Based on the above assessment, the Delegated Officer has determined that no flora or vegetation management conditions required.

### **3.2.2. Environmental value: biological values (fauna) – Clearing Principle (b)**

Assessment: The vegetation proposed to be cleared is limited to parkland clearing. All trees with a basal diameter of 150 mm will be retained. The clearing of understory is considered in this assessment.

The vegetation proposed to be cleared represents the general habitat requirements of a number of ground dwelling species, namely the priority four (P4) species; *Hydromys chrysogaster* (water-rat) and *Isoodon fusciventer* (quenda) due the presence of a vegetated understory and the presence of the waterbody within close proximity to the proposed clearing. It is noted that suitable habitat for these species is found in the adjacent areas of vegetation. The loss of 0.87 hectares of vegetation is not likely to impact the conservation status of the species but may impact individuals present at the time of clearing.

Outcome: To address the above impacts, the following conditions will be added to the permit:

- Directional clearing – clearing must take place from the road side toward the river to encourage movement of fauna away from the road and into the remnant vegetation.

### **3.2.3. Environmental value: conservation areas – Clearing Principles (h)**

Assessment: The proposed clearing is adjacent to remnant vegetation which is considered likely to be in good condition and is contiguous with the Wooditjup National Park. The proposed clearing has the potential to impact on the remaining vegetation by increasing weed species and potentially dieback.

Outcome: To address the above impacts, weed and dieback management conditions will be added to the permit:

## **3.3. Relevant planning instruments and other matters**

Other relevant matters in relation to the proposed clearing include:

The proposed clearing is within 150 meters of a registered Aboriginal Heritage Place (Margaret River, ID: 4495). It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

## **Appendix A – Additional information provided by applicant**

During the assessment, the applicant was requested to clarify the method of clearing and avoidance and minimisation measures considered. Concise details have been provided in sections 1.2 and 3.1 above and further comments listed below:

- The mulching forms one component of two stages to reduce the extreme bushfire risk as identified in our Bushfire Risk Management System (BRMS) that Barrett Street is currently listed at. Without the mulched area to increase the separation of the fuel from the residents, BRMS forward predictions tell us that this block will need to be burnt every 6 years in order to maintain a Very High bushfire risk. Anything over moderate requires attention under our Bushfire Risk Management Plan (BRMP) <https://www.amrshire.wa.gov.au/council/publications>. (Shire of Augusta Margaret River, 2020a).
- Without the mulching, the rating only achieves a reduction to very high after a burn. Routine controls are not enough to adequately manage the risk. Specific action will be required during the period covered by the BRMP. Quarterly monitoring may be required. Utilising the combination of mulching and hazard reduction burn the risk decreases to Medium (Course of action may not be required. Risk may be managed with routine controls and/or procedures and monitored as required throughout the life of the BRMP, Mulching ensures the risk does not return to extreme until year 10, thus reducing the frequency of the required burning rotation (Shire of Augusta Margaret River, 2020a).



## Appendix B – Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

### 1. Site characteristics

Site characteristic	Details
Local context	<p>The proposed clearing area is part of an expansive tract of native vegetation. It is surrounded to the north by a large area of intact vegetation which borders the Margaret River. The proposed clearing area is part of a 145 ha area of vegetation which includes a National Park.</p> <p>The local area (10 km radius of the proposed clearing area) retains approximately 45% of the original native vegetation cover.</p>
Vegetation description	<p>Photographs provided by the applicant indicate the vegetation within the proposed clearing area consists of <i>Eucalyptus diversicolor</i> and <i>Corymbia calophylla</i> over a dense mixed understory. Representative photos are available in Appendix E.</p> <p>This is consistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> <li>Wilybrup, W1 (Mattiske and Havel, 1998). which is described as: Tall open forest of <i>Eucalyptus diversicolor-Corymbia calophylla-Allocasuarina decussata-Agonis flexuosa</i> on deeply incised valleys in the hyperhumid zone.</li> </ul>
Vegetation condition	<p>Photographs provided by the applicant indicate the vegetation within the proposed clearing area is in good (Keighery, 1994) to degraded condition.</p> <p>The full Keighery condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.</p>
Soil description	<p>The soil is mapped as Wilyabrup, undifferentiated hillslope Phase which is described as slopes with gradients generally 5-15%, but ranging from 2-30%, and gravelly soils (i.e. Forest Grove and Keenan Soils).</p>
Land degradation risk	<p>The land degradation risk categories that apply to the mapped soil type are:</p> <ul style="list-style-type: none"> <li>Water Erosion: 3-10% of map unit has a high to extreme water erosion risk;</li> <li>Wind Erosion: &gt;70% of map unit has a high to extreme wind erosion risk;</li> <li>Salinity: &lt;3% of map unit has a moderate to high salinity risk or is presently saline;</li> <li>Subsurface Acidification: &gt;70% of map unit has a high subsurface acidification risk or is presently acid;</li> <li>Subsurface compaction: 50-70% of the map unit has a high subsurface compaction risk;</li> <li>Flood risk: &lt;3% of the map unit has a moderate to high flood risk;</li> <li>Water logging: 3-10% of map unit has a moderate to very high waterlogging risk;</li> <li>Phosphorus export: 10-30% of map unit has a high to extreme phosphorus export risk;</li> </ul>
Waterbodies	<p>The desktop assessment and aerial imagery indicated that the application area is within 200 meters of the Margaret River.</p>
Conservation areas	<p>The desktop assessment and aerial imagery indicated that the application area is within 200 meters of the Wooditjup National Park and 600 meters of the Keenan State Forrest.</p>
Climate and landform	<p>The application area has a gentle slope towards the Margaret River.</p>

Site characteristic	Details
	The mean annual rainfall is estimated to be 1200 mm (BOM, 2020).

## 2. Flora, fauna and ecosystem analysis

With consideration for the site characteristics set out above, relevant datasets (see Appendix F), the following conservation significant flora and fauna species, and ecological communities may be impacted by the clearing.

Species / Ecological Community	Distance of closest record to application area (kilometres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
<b>Communities</b>					
Nil					
<b>Fauna</b>					
<i>Isodon fusciventer</i> (quenda) (P4)	0.6			yes	n/a
<i>Hydromys chrysogaster</i> (water rat) (P4)	0.16			yes	n/a
<b>Flora</b>					
<i>Gahnia sclerioides</i> (P4)	1	Yes	Yes		n/a
<i>Gastrolobium formosum</i> (P3)	1	Yes	Yes		n/a
<i>Pultenaea pinifolia</i> (P3)	0.6	Yes	Yes		n/a

## 3. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Warren	833,985.56	659,432.21	79.07	558,485.38	66.97
Vegetation complex					
Wilyabrup	7,296.19	3,915.60	53.67	2,214.01	25.75

## Appendix C – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u> No conservation significant flora or ecological communities recorded in the local area are likely to occur within the application area. The application area does not contain significant habitat for fauna.</p>	Not likely to be at variance	Yes Refer to Section 3.2.2 above.
<p><u>Principle (b):</u> <i>“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.”</i></p> <p><u>Assessment:</u> The proposed clearing consists of vegetation in good to degraded (Keighery, 1994) condition and is adjacent to an ecological linkage. Numerous records of conservation significant fauna have been recorded in the local area. Understorey contains suitable habitat for ground dwelling fauna.</p>	May be at variance	Yes Refer to Section 3.2.2 above.
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u> No threatened flora recorded in the local area are likely to occur within the application area.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> <i>“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.”</i></p> <p><u>Assessment:</u> The proposed clearing area is not located within any mapped threatened ecological communities and is not representative of any threatened ecological communities.</p>	Not likely to be at variance	No
<b>Environmental values: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u> The extent of the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. Vegetation in the proposed clearing area is aligned with the mapped South West Regional Ecological Linkage. The proposed clearing is not considered to impact this linkage.</p>	Not likely to be at variance	No
<p><u>Principle (h):</u> <i>“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.”</i></p> <p><u>Assessment:</u> The proposed clearing is within 200 meters of a National Park and is adjacent to intact vegetation. The proposed clearing has the potential to increase weeds and dieback into neighbouring vegetation.</p>	May be at variance	Yes Refer to Section 3.2.2 above.
<b>Environmental values: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p>	Not likely to be at variance	No



Assessment against the Clearing Principles	Variance level	Is further consideration required?
<p><u>Assessment:</u> Photographs provided by the applicant (Appendix E) indicate the vegetation consists of; <i>Eucalyptus diversicolor</i> and <i>Corymbia calophylla</i> over a mixed dense understory. These species are not considered riparian. Noting this, the proposed clearing is not considered to be growing in, or in association with a watercourse or wetland.</p>		
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u> The mapped soils are not highly susceptible to wind erosion. Noting the extent of the proposed clearing and the amount and condition of vegetation remaining in the immediate area, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <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.”</i></p> <p><u>Assessment:</u> Given the closest water course is approximately 200 meters from the proposed clearing and that the area between the proposed clearing and the watercourse consists of intact vegetation, the proposed clearing is not likely to cause deterioration in the quality of surface of underground water. .</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u> The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p>	Not likely to be at variance	No

## Appendix D – Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

### Measuring Vegetation Condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very Good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

## Appendix E – Photographs of the vegetation

The photographs below were provided by the applicant (Shire of Augusta – Margaret River, 2020b)

	<p><i>Eucalyptus diversicolor</i> over an understory of weeds and natives</p>
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*Eucalyptus diversicolor* and *Corymbia calophylla* over an understory of weeds and natives

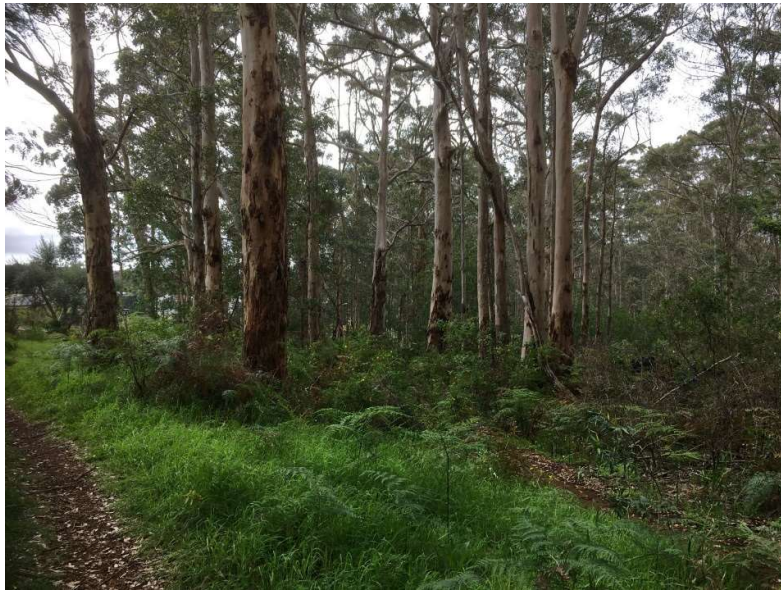


*Eucalyptus diversicolor* over an understory of weeds and natives





*Eucalyptus diversicolor* and *Corymbia calophylla* over an understory of weeds and natives



*Eucalyptus diversicolor* over an understory of weeds and natives

## Appendix F – References and databases

### 1. References

Bureau of Meteorology (BOM) (2020) Climate classification maps. Available from:  
[http://www.bom.gov.au/jsp/ncc/climate\\_averages/climate-classifications/index.jsp?maptype=kpn#maps](http://www.bom.gov.au/jsp/ncc/climate_averages/climate-classifications/index.jsp?maptype=kpn#maps)

DPIRD (2017) NRInfo Digital Mapping. Accessed at <https://maps.agric.wa.gov.au/nrm-info/> Accessed October 2020. Department of Primary Industries and Regional Development, Government of Western Australia

Government of Western Australia (2019) 2018 South West Vegetation Complex Statistics. Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>

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.

Shire of Augusta Margaret River (2020) Application for clearing permit CPS 9034/1. DWER Reference: A1930809

Shire of Augusta Margaret River (2020a) Further information on proposed clearing method. DWER Reference: A1944421

Shire of Augusta Margaret River (2020b) Photographs of the application area. DWER Reference: A1938883

## 2. GIS datasets

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- Aboriginal Heritage Places (DPLH-001)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Regional Parks (DBCA-026)
- Soil and Landscape Mapping – Best Available

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)