



## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 9121/3
<b>Permit Holder:</b>	Department of Finance
<b>Duration of Permit:</b>	14 February 2021 to 14 February 2026

The permit holder is authorised to clear native vegetation subject to the following conditions of this permit.

### **PART I – CLEARING AUTHORISED**

#### **1. Clearing authorised (purpose)**

The permit holder is authorised to clear native vegetation for the purpose of constructing a school oval.

#### **2. Land on which clearing is to be done**

Lot 569 on Plan 400255, Margaret River

#### **3. Clearing authorised**

The permit holder must not clear more than 65 native trees within the area cross-hatched yellow in Figure 1 of Schedule 1.

### **PART II – MANAGEMENT CONDITIONS**

#### **4. Avoid, minimise, and reduce impacts and extent of clearing**

In determining the native vegetation authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

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

#### **5. Weed and dieback management**

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of 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 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.

## 6. Wind erosion management

The permit holder must commence construction activities no later than three (3) months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

## 7. Fauna management – western ringtail possums and south-western brush-tailed phascogales

- (a) Prior to commencing clearing, the Permit Holder must prepare a Western Ringtail Possum Management Plan;
  - (i) the Western Ringtail Possum Management Plan must include scheduled monitoring for displaced and relocated individuals and actions for intervention with individual animals;
  - (ii) the Western Ringtail Possum Management Plan must be submitted to the *CEO* for approval prior to commencing works;
  - (iii) the Permit Holder must implement and adhere to the approved Western Ringtail Possum Management Plan.
- (b) In relation to the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must engage a *fauna specialist* to inspect that area, including all hollows and *dreys* immediately prior to, and for the duration of clearing activities, for the presence of western ringtail possum(s) (*Pseudocheirus occidentalis*) and south-western brush-tailed phascogales (*Phascogale tapoatafa*).
- (c) Clearing activities must cease immediately in any area where fauna referred to in condition 7(b) are identified until either:
  - (i) the south-western brush-tailed phascogale(s) and/or western ringtail possum(s) individual has moved on from that area to adjacent *suitable habitat*; or
  - (ii) the south-western brush-tailed phascogale(s) and/or western ringtail possum(s) individual has been removed by a *fauna specialist*.
- (d) Any western ringtail possum(s) individual removed in accordance with condition 7(c)(ii) must be relocated by a *fauna specialist* to a *suitable habitat* within the area(s) cross-hatched red in Figure 2 of Schedule 1, or an alternative area identified in consultation with the Department of Biodiversity, Conservation and Attractions (DBCA), as approved by the *CEO*.
- (e) Where fauna is identified under condition 7(b) and noting actions under condition 7(c), the permit holder must within 14 calendar days provide the following records to the *CEO*:
  - (i) the number of individuals identified;
  - (ii) the date each individual was identified;
  - (iii) the location where each individual was identified 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;
- (iv) the number of individuals removed and relocated;
- (v) the date each individual was removed;
- (vi) the method of removal;
- (vii) the date each individual was relocated;
- (viii) the location where each individual was relocated to, recorded using a GPS unit set to GDA94, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
- (ix) details pertaining to the circumstances of any death of, or injury sustained by, an individual.

## 8. Revegetation - mitigation

- (a) The Permit Holder must, within three (3) months of undertaking clearing authorised under this Permit:
  - (i) engage an *environmental specialist* to prepare a *revegetation plan*, in consultation with DBCA and the Shire of Augusta-Margaret River, for the revegetation and rehabilitation required under condition 8(b). This plan will be in accordance with DWER's *A Guide to Preparing Revegetation Plans for Clearing Permits*;
  - (ii) submit the plan required under Condition 8(a) of this permit to the *CEO* for approval.
- (b) The Permit Holder must, within six (6) months of the commencement of clearing authorised under this Permit:
  - (i) undertake deliberate *planting* of at least 130 trees within the area hatched red in Figure 3 of Schedule 1, or an alternative area identified in consultation with DBCA and the Shire of Augusta-Margaret River, as otherwise approved by the *CEO*;
  - (ii) the revegetation area shall include a combination of *Agonis flexuosa*, *Corymbia calophylla*, *Eucalyptus diversicolor* and *Eucalyptus marginata* as per the revegetation plan required and approved by the *CEO* under Condition 8(a)(i) and 8(a)(ii) of this permit;
  - (iii) ensure only *local provenance* propagating material is used for revegetation activities;
  - (iv) ensure *planting* is undertaken at the *optimal time*;
  - (v) ensure seedlings are of a suitable size of at least 1 metre in height; and
  - (vi) undertake *weed* control and watering of seedlings for at least three years post *planting*.
- (c) the Permit Holder must, within 24 months of *planting* the trees in accordance with condition 8(b)(i) of this Permit:
  - (i) engage an *environmental specialist* to make a determination that the planted trees will survive;
  - (ii) if the determination made by the *environmental specialist* under condition 8(c)(i) is that all planted trees will not survive, the Permit Holder must plant additional trees that will result in 130 trees persisting within the areas determined by the approved revegetation plan;
  - (iii) where additional planting of trees is undertaken in accordance with condition 8(c)(ii), the Permit Holder must repeat the activities required by conditions 8(b)(i)-(vi), and 8(c) of this Permit.

## **PART III - RECORD KEEPING AND REPORTING**

### **9. Records that must be kept**

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

**Table 1: Records that must be kept**

<b>No.</b>	<b>Relevant matter</b>	<b>Specifications</b>
1.	In relation to the authorised <i>clearing</i> activities generally	<ul style="list-style-type: none"><li>(a) the number and species of trees cleared;</li><li>(b) the location where the <i>clearing</i> occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;</li><li>(c) the date that the area was cleared;</li><li>(d) actions taken to avoid, minimise, and reduce the impacts and extent of <i>clearing</i> in accordance with condition 4; and</li><li>(e) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 5;</li><li>(f) The date that construction commenced in accordance with condition 6;</li><li>(g) actions taken to manage and mitigate impacts to western ringtail possums and south-western brush-tailed phascogales in accordance with condition 7;</li><li>(h) actions taken to revegetate in accordance with condition 8.</li></ul>

### **10. Reporting**

The permit holder must provide to the *CEO* the records required under condition 9 of this permit when requested by the *CEO*.


## DEFINITIONS

In this permit, the terms in Table have the meanings defined.

**Table 2: Definitions**

Term	Definition
<i>CEO</i>	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
<i>clearing</i>	has the meaning given under section 3(1) of the EP Act.
<i>condition</i>	a condition to which this clearing permit is subject under section 51H of the EP Act.
<i>drey</i>	means the nest of a western ringtail possum ( <i>Pseudocheirus occidentalis</i> )
<i>dieback</i>	means the effect of <i>Phytophthora</i> species on native vegetation.
<i>department</i>	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
<i>environmental specialist</i>	means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist.
<i>EP Act</i>	<i>Environmental Protection Act 1986</i> (WA)
<i>fauna specialist</i>	means a person who holds a tertiary qualification specialising 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 <i>Biodiversity Conservation Act 2016</i> .
<i>fill</i>	means material used to increase the ground level, or to fill a depression.
<i>local provenance</i>	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared.
<i>mulch</i>	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
<i>native vegetation</i>	has the meaning given under section 3(1) and section 51A of the EP Act.
<i>optimal time</i>	means the period from May to October for undertaking planting and seeding
<i>planting</i>	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species
<i>rehabilitate/ rehabilitated / rehabilitation</i>	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
<i>revegetate / vegetated / revegetation</i>	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
<i>suitable habitat (western ringtail possum)</i>	means habitat known to support western ringtail possums ( <i>Pseudocheirus occidentalis</i> ) within the known current distribution of the species, typically characterised by abundant foliage, presence of suitable nesting structures such as tree hollows, as well as high canopy cover and continuity. Known habitat includes peppermint ( <i>Agonis flexuosa</i> ) dominated woodlands, jarrah ( <i>Eucalyptus marginata</i> ) and marri ( <i>Corymbia calophylla</i> ) forests, riparian vegetation with a canopy of Bullich ( <i>Eucalyptus megacarpa</i> ) or flooded gum ( <i>Eucalyptus rudis</i> ), karri ( <i>Eucalyptus diversicolor</i> ) forests, sheoak ( <i>Allocasuarina fraseriana</i> ) dominated woodlands, and other stands of myrtaceous trees growing near swamps, watercourses or floodplains.

Term	Definition
<i>suitable habitat (south-western brush-tailed phascogales)</i>	means habitat known to support south-western brush-tailed phascogales ( <i>Phascogale tapoatafa</i> ) within the known current distribution of the species, typically characterised by open woodlands that contain hollow-bearing trees but a sparse ground cover.
<i>weeds</i>	means any plant – <ul style="list-style-type: none"> <li>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or</li> <li>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or</li> <li>(c) not indigenous to the area concerned.</li> </ul>



Meenu Vitarana  
A/Manager  
NATIVE VEGETATION REGULATION

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

18 August 2021

# Schedule 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1)

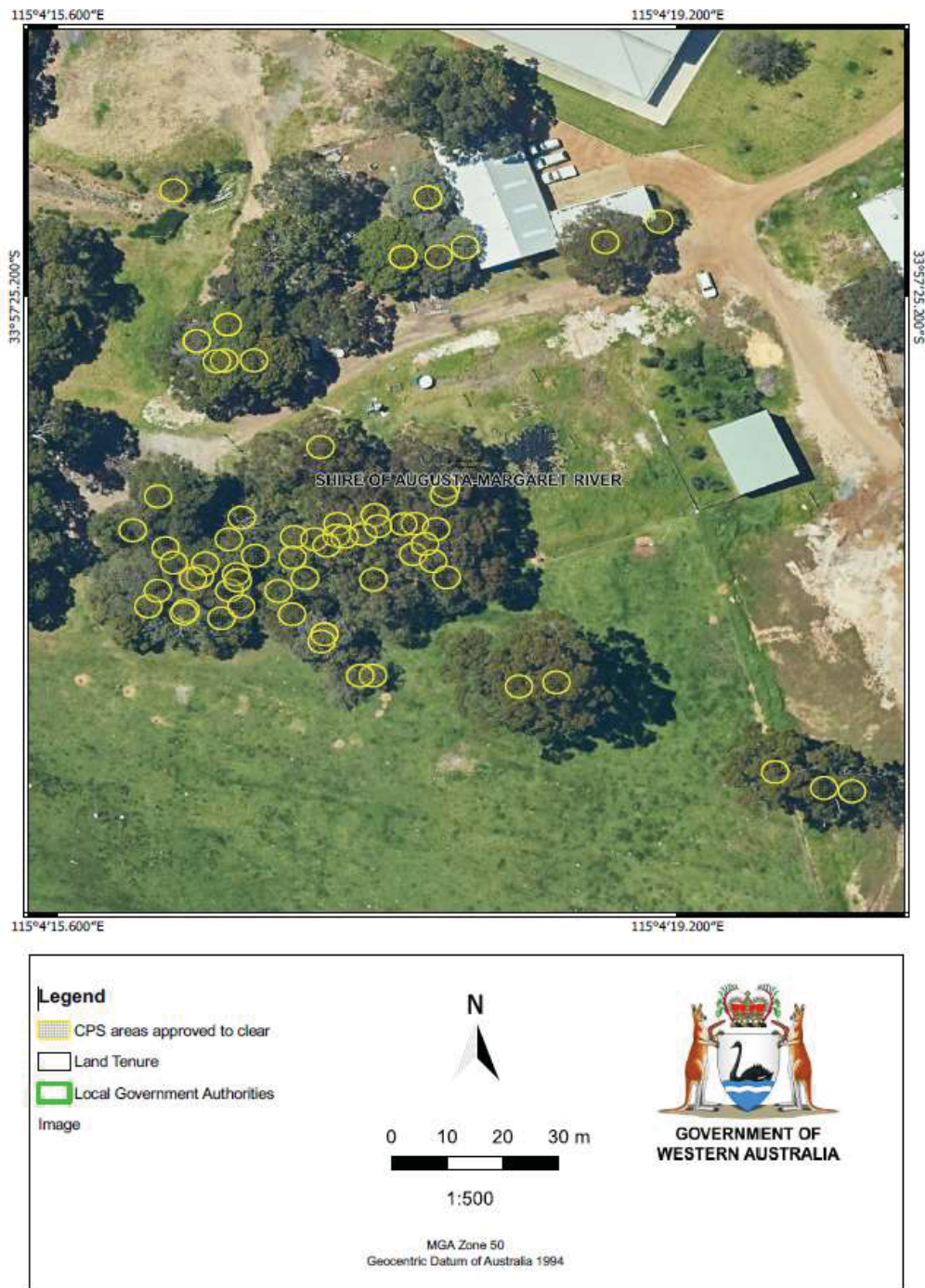


Figure 1

The boundary of the area defined as *suitable habitat* is shown in the map below (Figure 2).

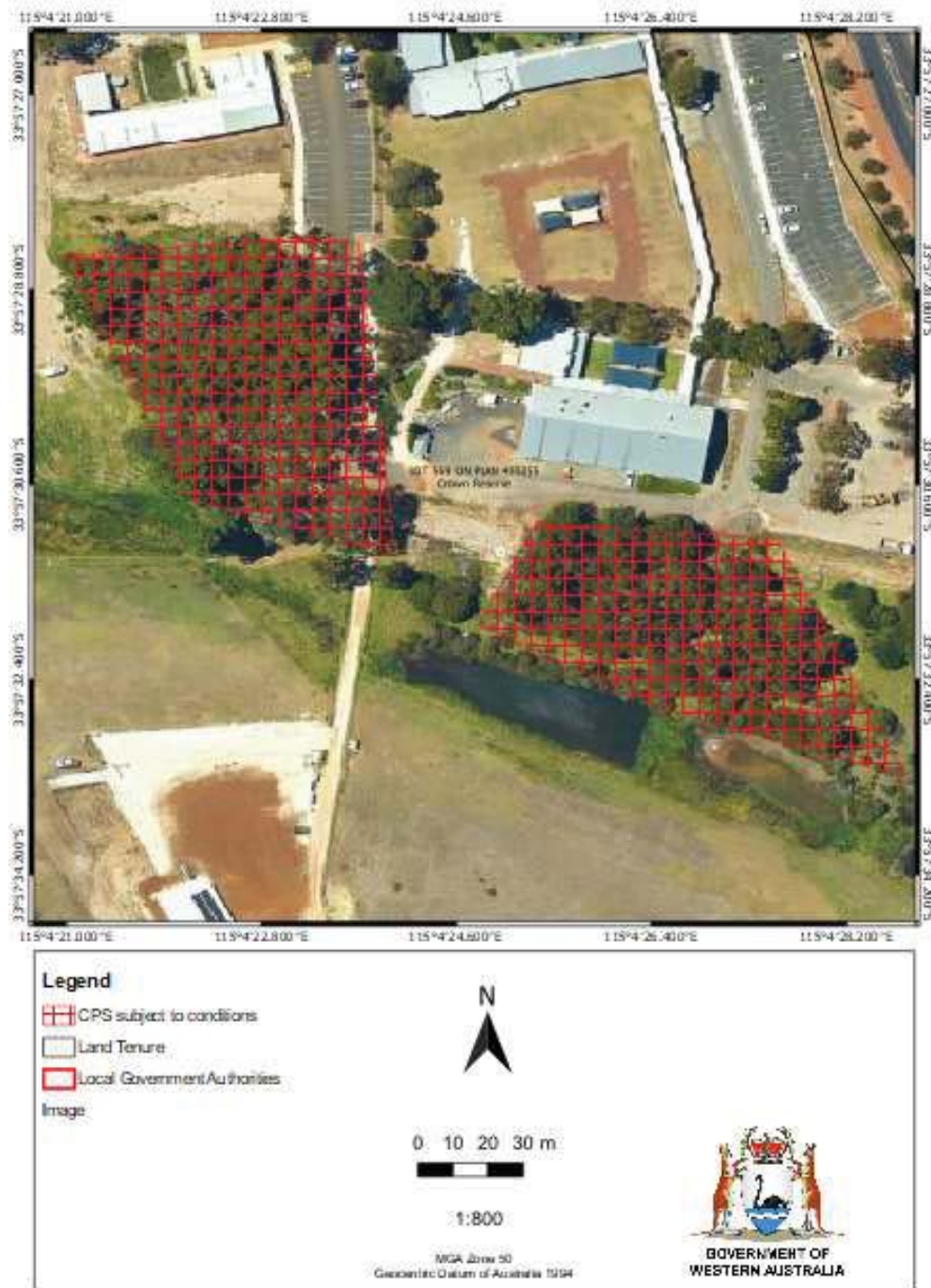


Figure 2



The boundary of the area within which revegetation is to occur is shown in the map below (Figure 3).

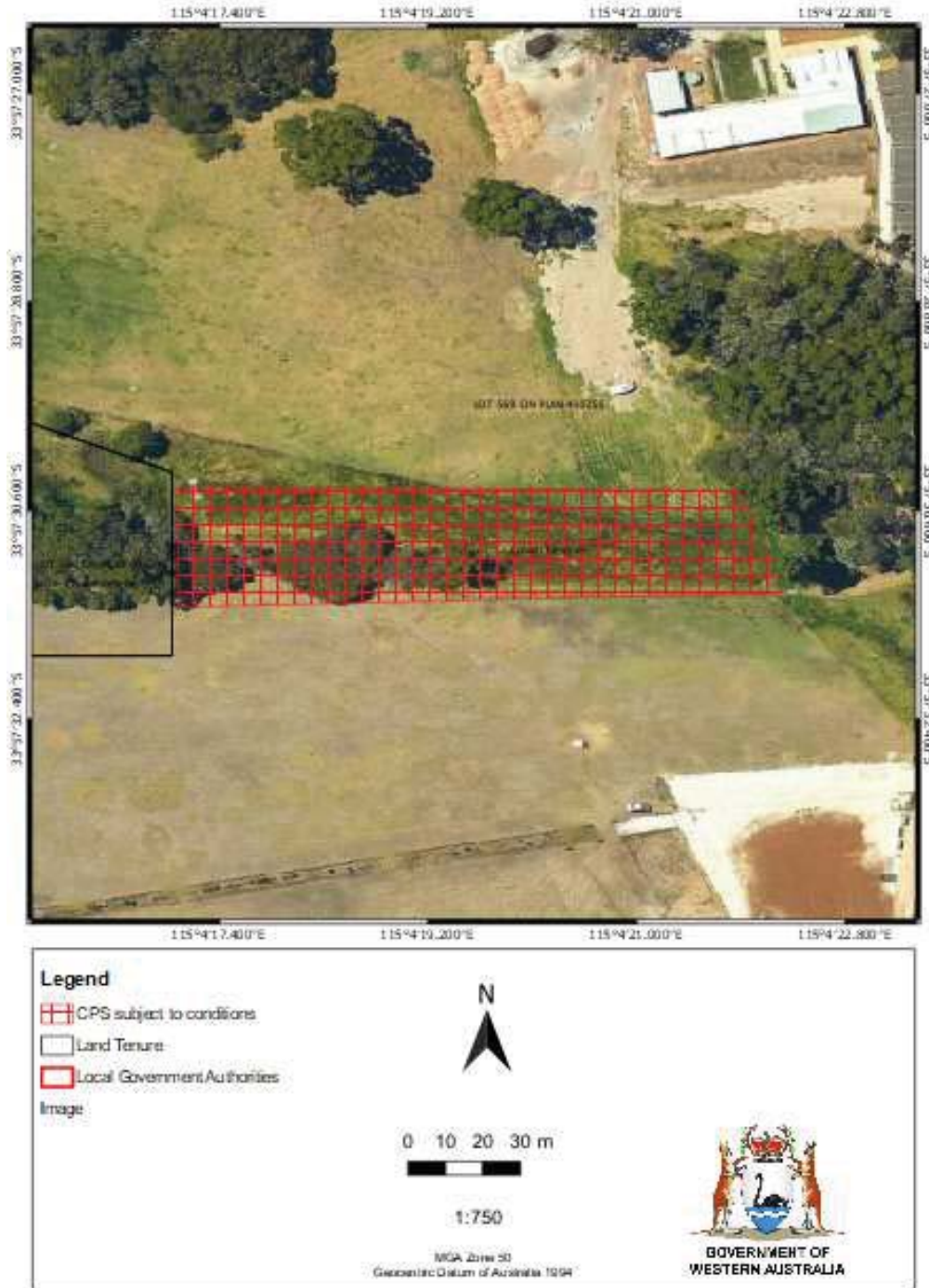


Figure 3



# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9121/3
<b>Permit type:</b>	Purpose permit
<b>Applicant name:</b>	Department of Finance
<b>Application received:</b>	02 August 2021
<b>Application area:</b>	65 native trees
<b>Purpose of clearing:</b>	To facilitate the construction of a sporting oval
<b>Method of clearing:</b>	Mechanical Removal
<b>Property:</b>	Lot 569 on Deposited Plan 400255
<b>Location (LGA area/s):</b>	Shire of Augusta-Margaret River
<b>Localities (suburb/s):</b>	Margaret River

### 1.2. Description of clearing activities

This amendment is to increase the number of trees to be cleared by four (65 trees in total) to facilitate the construction of a sporting oval (see Figure 1, Section 1.5). CPS 9121/2 allowed for the clearing of 61 native trees. The entire clearing permit footprint sought under CPS 9121/3 is 65 trees.

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	18 August 2021
<b>Decision area:</b>	65 native trees, as depicted in Section 1.5, below.

### 1.4. Reasons for decision

This clearing permit amendment application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 7 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix E.1), the findings of a flora and fauna survey (see Appendix D), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration the construction of the oval is part of the South West Recovery Plan (Government of Western Australia, 2020).

The assessment has not changed significantly since the assessment for CPS 9121/1 and CPS 9121/2. The Delegated Officer determined that the proposed additional clearing of two trees is not likely to lead to an unacceptable risk to environmental values.

## 1.5. Site map

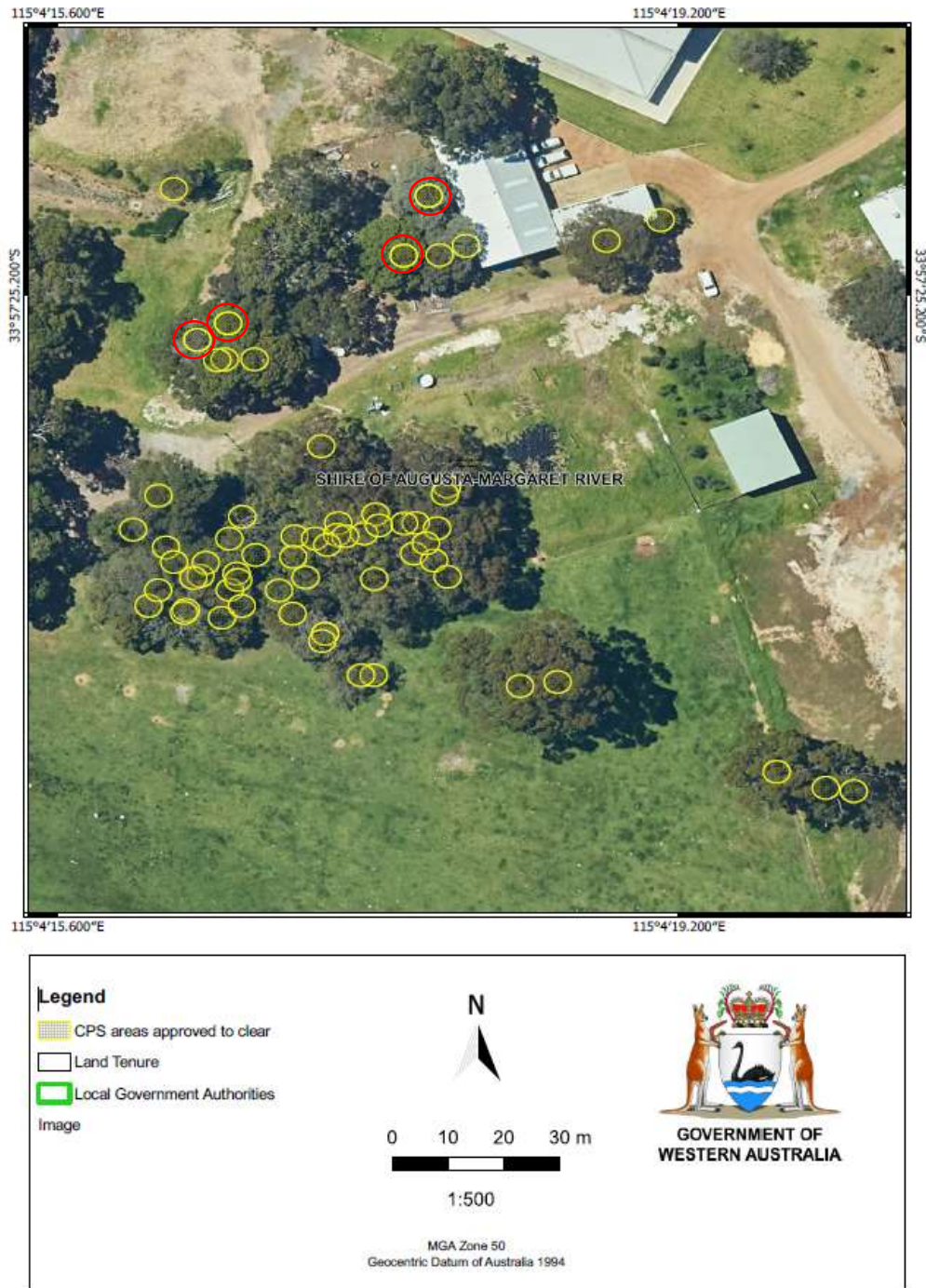


Figure 1 Map of the application area (the additional four trees included in the amendment application are circled in red)

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

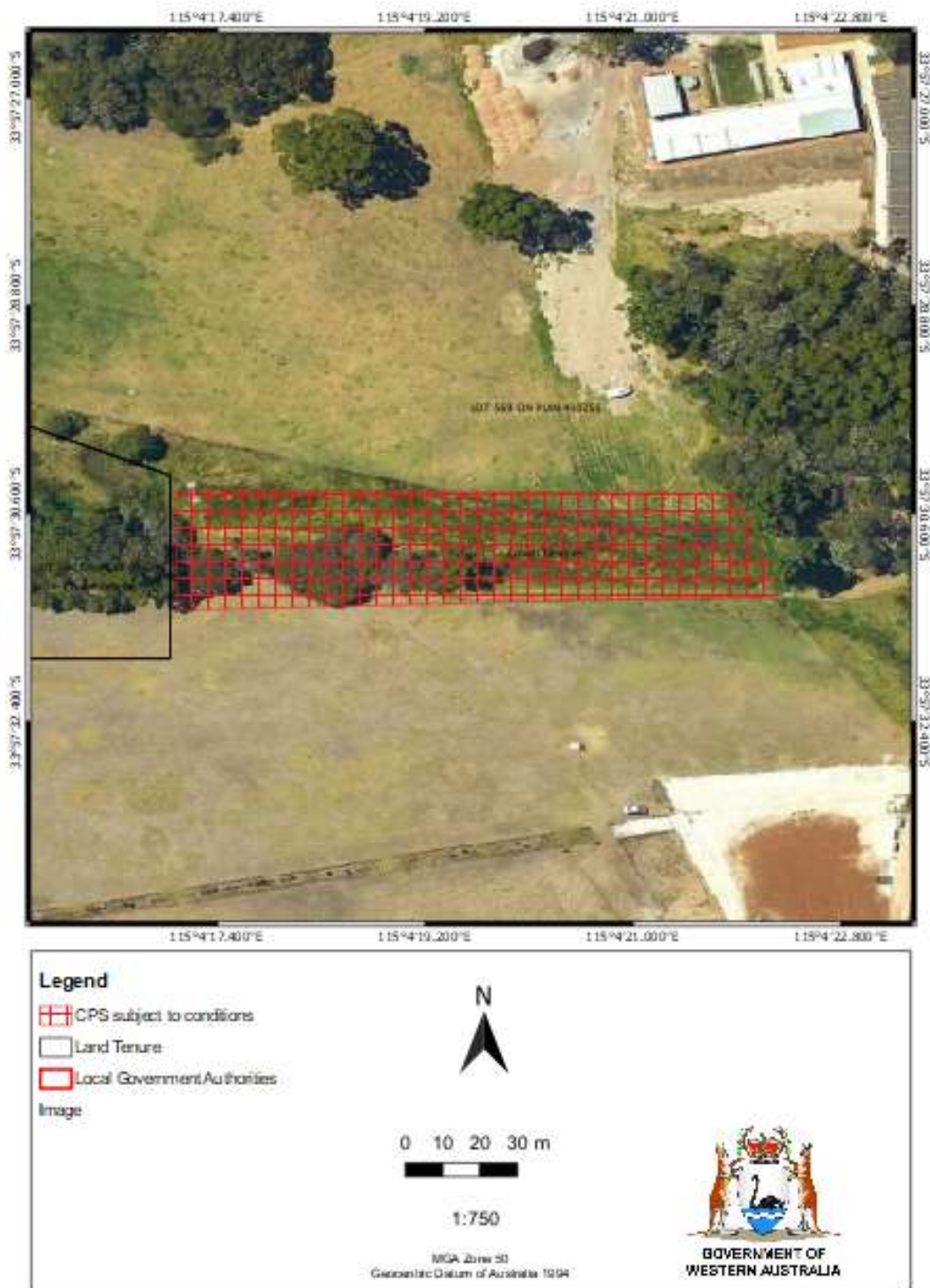


Figure 2 Map of the application area

The area cross-hatched red indicates the area within which revegetation should occur as noted in condition 8 of the Permit. The permit condition also allows for the identification of an alternative site in consultation with the Department of Biodiversity, Conservation and Attractions and the Shire of Augusta-Margaret River.

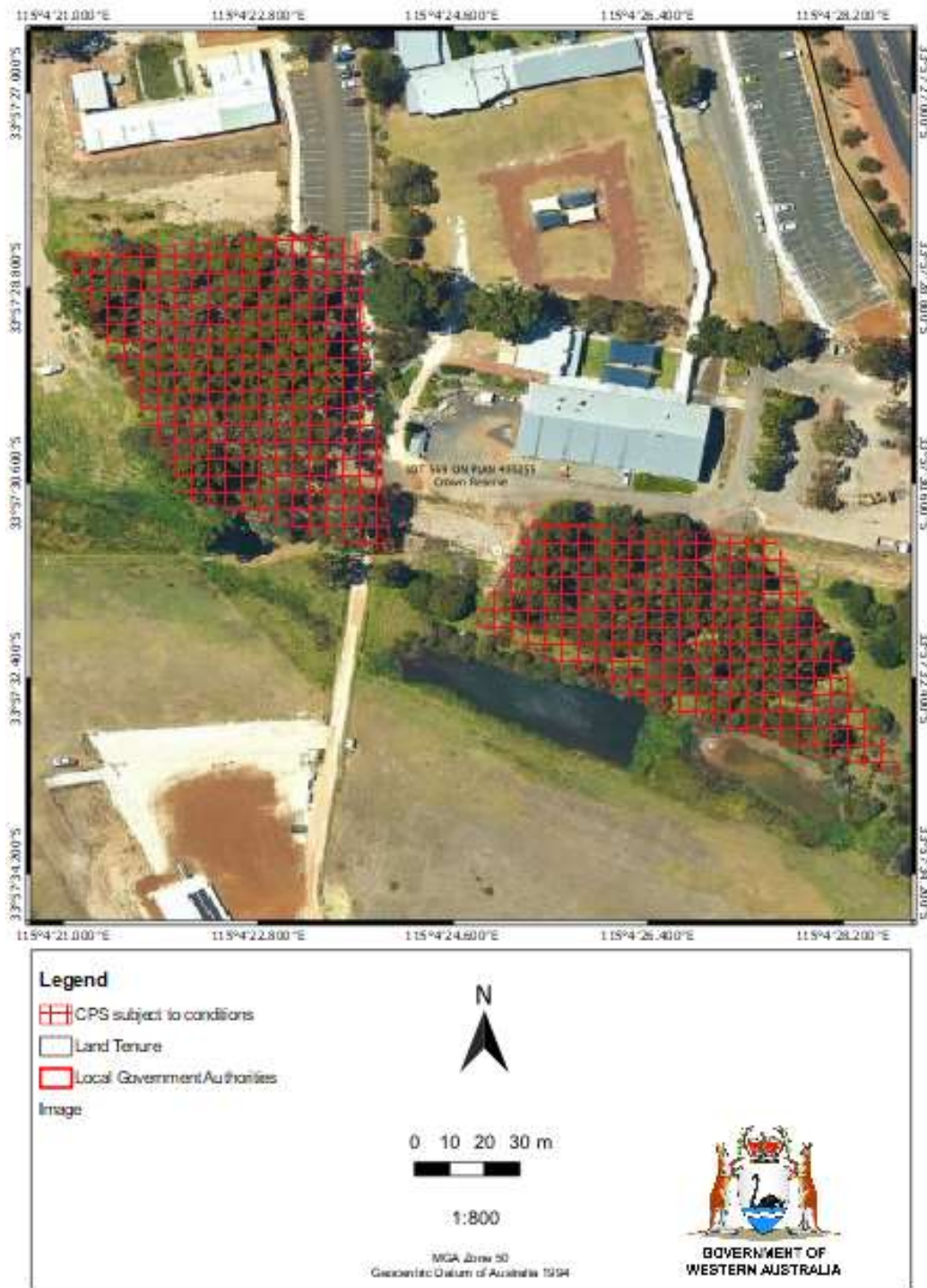


Figure 3 Map of the application area

The area cross-hatched red indicates the area to which fauna species can be relocated under condition 7 of the Permit. The permit condition also notes that an alternative site may be identified in consultation with the Department of Biodiversity, Conservation and Attractions.

## 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 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the polluter pays principle
- 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)
- *Planning and Development Act 2005* (WA) (P&D Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

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.

Evidence was provided by the applicant, demonstrating that the siting of the oval was located in an area which contained parkland cleared vegetation, minimising the removal of high-quality remnant vegetation (Department of Finance, 2020). The applicant also proposed to retain 14 large trees of varying species, including *Corymbia calophylla* (13) and *Eucalyptus globulus* (1). These trees are considered to be potential Black Cockatoo roosting trees. Two of the *C. calophylla* trees contain hollows (<150mm) considered suitable to support the South-Western Brush-Tailed Phascogale. Five scattered *Agonis flexuosa* will also be retained on site. A total of 19 trees of varying species, two of which contains hollows, will be retained within the site.

Given the presence of hollow bearing trees and known habitat for western ringtail possums (WRP), the applicant has committed to engaging an experienced fauna specialist immediately prior to and for the duration of the clearing works being undertaken, to inspect the vegetation for evidence of recent use or occupation by south-western brush-tailed phascogale or WRP. Should occupation of the dreys, *A. flexuosa* (peppermint) or hollow bearing trees be confirmed, the vegetation will only be cleared after a repeat inspection undertaken by a qualified fauna specialist confirms that they are no longer occupied by WRPs or south-western brush-tailed phascogale .

The clearing permit includes condition relating to fauna management based on current information and advice received during the assessment.

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 impacts on environmental values

CPS 9121/1 allowed the clearing of 59 native trees for the extension of the Margaret River Senior High School sporting facilities. On 30 April 2021, CPS 9121/1 was amended to include two additional trees, increasing the clearing footprint to 61 trees.

The applicant advised that all 61 trees have been cleared in accordance with CPS 9121/2 (Department of Finance, 2021c). This amendment application therefore is required to clear the four additional trees.

A review of current environmental information (Appendix C) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Reports CPS 9121/1 and CPS 9121/2.

The additional trees were identified to require removal following further site works, investigation and consultation with the project arborist. The four additional trees to be cleared are two *Corymbia calophylla* (in poor to fair health), one *Agonis flexuosa* (in good health) and one *Eucalyptus marginata* (in poor health) (Department of Finance, 2021b). See Appendix D for further details. Photographs provided by the applicant indicate the additional trees proposed to be cleared are not at a mature age to contain hollows suitable for black cockatoos.

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

Assessment of planning and other relevant matters have not changed since the assessment of CPS 9121/1 and CPS 9121/2.

The clearing permit amendment application was advertised on the Department of Water and Environmental Regulation's (DWER) website on 10 August 2021, inviting submissions from the public within a 7 day period. No submissions were received in relation to this application.

**End**

## Appendix A Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared includes 65 individual trees, located within the intensive land use zone of Western Australia. It is adjacent to the Margaret River Senior High School and the Southern Regional TAFE – Margaret River Campus. The proposed clearing area is comprised of a mix of native and non-native trees including and the understory has been previously cleared for used by the surrounding education facilities.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 56 per cent of the original native vegetation cover.</p>
Ecological linkage	<p>The application area does not provide any formal or informal ecological linkages and the properties to the east and west have been developed to include retail, commercial and educational infrastructure. The area to the south of the application area has been previously cleared and currently comprises open pasture.</p>
Conservation areas	<p>The application area does not intersect any known or mapped conservation areas, with the closest, Wooditjup National Park, located approx. 1.5 kilometres to the north. The local area also contains Keenan State Forest and Leeuwin-Naturaliste National Park.</p>
Vegetation description	<p>A vegetation survey (Ecosystem Solutions, 2020) indicated the vegetation within the proposed clearing area consists of <i>Eucalyptus cornuta</i> (Yate), <i>Corymbia citriodora</i> (Lemon scented gum), <i>Agonis flexuosa</i> (Peppermint), <i>Corymbia calophylla</i> (Marri), <i>Eucalyptus patens</i> (Swan River blackbutt) open forest over peppermint and yate low woodlands over introduced grasses. The full survey descriptions and maps are available in Appendix D.</p> <p>This is broadly consistent with the South West Forest mapped vegetation type (Mattiske and Havel, 1998):</p> <ul style="list-style-type: none"> <li>• C1: Open to tall open forest of <i>Eucalyptus marginata subsp. marginata</i>-<i>Corymbia calophylla</i>-<i>Banksia grandis</i> on lateritic uplands in the hyperhumid zone; and</li> <li>• Cw1: Mixture of open forest to woodland of <i>Eucalyptus diversicolor</i>-<i>Corymbia calophylla</i> and woodland of <i>Eucalyptus marginata subsp. marginata</i> -<i>Corymbia calophylla</i> on slopes and low woodland of <i>Melaleuca preissiana</i>-<i>Banksia littoralis</i> on depressions in the hyperhumid zone.</li> </ul> <p>The mapped vegetation types retain approximately 34 and 28 per cent of the original extent respectively (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Vegetation survey (Ecosystem Solutions, 2020) indicate the vegetation within the proposed clearing area is in Completely Degraded to Degraded condition (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. The full survey descriptions and mapping are available in Appendix D.</p>



Characteristic	Details
Climate and landform	The Bureau of Meteorology (BOM) website indicates the nearby town of Witchcliffe (seven kilometres south) has a mean annual minimum temperature of 10.8°C and maximum temperature of 21.4°C (1999-2020) and a mean annual rainfall of 951.7 millimetres (1999-2000).
Soil description	The soil within the application area is mapped as 216CoCOu: Flats and gentles slopes (0-5 per cent gradient) with gravelly duplex (Forest Grove) and pale grey mottled (Mungite) soils.
Land degradation risk	The soils present within the application area indicate a low to nil risk of water erosion, phosphorus export, flooding, salinity and waterlogging, and a high risk of wind erosion and subsurface acidification (DPIRD, 2017).
Waterbodies	The desktop assessment and aerial imagery indicated that no watercourses or wetlands are present within the application area.
Hydrogeography	The application area is mapped in the Busselton-Capel Groundwater Area proclaimed under the <i>RIWI Act 1914</i> .
Flora	The local area (10 kilometres radius) indicates a total of 72 previous records from 20 different species of conservation significant flora, with the closest records located 572 metres away.
Ecological communities	The local area contains four records of the Priority 2 Ecological Community ' <i>Melaleuca lanceolata</i> forests, <i>Leeuwin Naturaliste Ridge</i> ', with the closest located 8.6 km west.
Fauna	The local area (10 kilometre radius) indicates a total of 1467 previous records from 43 different species of conservation significant fauna, with the closest record located 130 metres away. <i>Calyptorhynchus baudinii</i> (Baudin's Cockatoo) is the most recorded species with 521 sightings in the local area, with <i>Pseudocheirus occidentalis</i> (Western Ringtail Possum) next with 231 sightings.

## A.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Warren	833,985.56	659,432.21	79.07	558,485.38	66.97
Vegetation complex					
Mattiske vegetation complex C1	18,981.79	6,540.87	34.46	2,286.01	12.04
Mattiske vegetation complex Cw1	6,144.37	1,726.07	28.09	592.86	9.65
Local area					
10km radius	294 399.02	165 061.84	56.07	-	-

\*Government of Western Australia (2019a)

\*\*Government of Western Australia (2019b)

### A.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), and biological survey information impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Franklandia triaristata</i>	P4	Y	Y	Y	2.66	1	Y
<i>Stylidium lowrieianum</i>	P3	Y	Y	Y	0.57	3	Y
<i>Caladenia excelsa</i>	T	Y	Y	Y	0.86	31	Y
<i>Pimelea ciliata subsp. longituba</i>	P3	Y	Y	Y	6.32	2	Y
<i>Acacia tayloriana</i>	P4	Y	Y	Y	8.56	1	Y
<i>Synaphea macrophylla</i>	P1	Y	Y	Y	6.61	1	Y
<i>Synaphea sp. Redgate Road (J. Scott 16)</i>	P1	Y	Y	Y	8.77	2	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

### A.4. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Calyptorhynchus baudinii</i> (Baudin's Cockatoo)	EN	Y	Y	0.20	578	Y
<i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo)	EN	Y	Y	0.28	121	Y
<i>Calyptorhynchus banksii naso</i> (Forest Red-Tail Black Cockatoo)	VU	Y	Y	1.76	11	Y
<i>Pseudocheirus occidentalis</i> (Western Ringtail Possum)	CR	Y	Y	0.13	231	Y
<i>Tyto novaehollandiae novaehollandiae</i> (Masked Owl – Southwest)	P3	Y	Y	0.86	3	Y
<i>Phascogale tapoatafa wambenger</i> (South-Western Brushtail Phascogale)	CD	Y	Y	0.86	87	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, CD: Conservation Dependent

### A.5. Land degradation risk table

Risk categories	Land Unit 1: 216CoCOu
Wind erosion	>70% of the map unit has a high to extreme wind erosion hazard
Water erosion	<3% of map unit has a high to extreme water erosion risk
Salinity	<3% of map unit has a moderate to high salinity risk or is presently saline
Subsurface Acidification	>70% of map unit has a high subsurface acidification risk or is presently acid
Flood risk	<3% of the map unit has a moderate to high flood risk
Water logging	30-50% of map unit has a moderate to very high waterlogging risk
Phosphorus export risk	3-10% of map unit has a high to extreme phosphorus export risk





## Appendix C. 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.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

### 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 D. Biological survey information excerpts

### D.1. Biological Survey excerpts (Ecosystem Solutions, 2020)

Vegetation Code	Vegetation
Vegetation A - Yate, Lemon Scented Gum, Peppermint, Marri, Swan River Blackbutt open forest over Peppermint and Yate low woodlands over introduced grasses (R01)	<i>Eucalyptus cornuta</i> , * <i>Corymbia citriodora</i> , <i>Agonis flexuosa</i> , <i>Corymbia calophylla</i> , <i>Eucalyptus patens</i> open forest over <i>Agonis flexuosa</i> , <i>Eucalyptus cornuta</i> low woodland over * <i>Cirsium vulgare</i> scattered shrubs over * <i>Cenchrus clandestinus</i> and introduced annual tussock grassland.



Picture 1. Relve 1 (R01) (Ecosystem Solutions, 2020)



Picture 2. Relve 1 (R01) (Ecosystem Solutions, 2020)



Location details: Margaret River Senior High School  
 Project: 20993  
 Assessment date: November 2020  
 Prepared by: L. Duffy  
 Date aerial photo: Nov 2020

**Vegetation Condition**



- Completely degraded
- Degraded
- Lot Boundary
- Site Boundary
- Watercourse



Figure 1. Vegetation Condition Mapping for Margaret River Senior High School (Ecosystem Solutions, 2020)

D.2. Arborist report excerpts (Paperbark Technologies, 2020)



Tree 10



Tree 11



Tree 21



Tree 20

Figure 1: Photos of the four additional trees to be cleared (Paperbark Technologies, 2020)



**Details of the four additional trees to be cleared:**

10 (5113)	<i>Corymbia calophylla</i>	12.6	11	510	580	Mature	Fair health and sound structural condition with a broad, open canopy and reduced foliage density. Minor epicormic growth developing throughout indicative of ongoing stress. No evidence of cankerous lesions. Minor deadwood.	Yes	Mark up plan indicates approximately a 2.5m deep cut for retaining wall construction within proximity of this tree on the southern side. Provide a fenced tree protection area of 4.0m radius and seek further advice if encroachment of works	6.1	2.6
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**Tree Survey – Margaret River Senior High School  
October 2020**

Tag No. & Survey No.)	Botanical Name	Height (m)	Canopy spread (m)	DBH (mm)	DRF (mm)	Age Class	Health & Condition	Suitable to retain Yes or No + why not	Comments and Recommendations	TP2 (m) radius	SRZ (m) radius
									within the TP2 is required. No pruning recommended.		
11 (5126)	<i>Agonis flexuosa</i>	13.8	11.5	1080	1210	Mature	Good health and sound structural condition with a full cover of healthy foliage supported by multiple stems. Major limb forks sound with some included unions evident. No evidence of fungal decay or cavities. Root plate firm. Previous stem removal from the eastern side evident.	Yes	Mark up plan indicates a retaining wall within close proximity of this tree. Provide a fenced tree protection area of 4.5m radius and seek further advice if encroachment of works within the TP2 is required. No pruning recommended.	13.0	3.6
21 (5010)	<i>Eucalyptus marginata</i>	13.7	7	420	480	Early mature	Suppressed tree in poor health and condition with limited canopy development. Previously pruned with epicormic regrowth developing in the upper canopy. Minor deadwood throughout.	No – poor health and structural condition.	Mark up plan indicates approximately a 2.5m deep cut for retaining wall construction within proximity of this tree on the south eastern side. Removal recommended.	5.0	2.4
22 (5011)	<i>Corymbia calophylla</i>	20.6	15	880	960	Mature	Poor health and fair structural condition with the upper canopy section supported by the northern stem dying back due to a severe cankerous lesion and a lateral limb on the eastern side similarly affected. Other sections of the canopy not significantly impacted and retain a suitable cover of healthy foliage at this time.	Yes	Mark up plan indicates approximately a 2.5m deep cut for retaining wall construction within close proximity of this tree on the south eastern side. Retention in a sound condition considered unlikely. Removal recommended.	10.6	3.3

# 1 - MAP OF PROPOSED ADDITIONAL TREES TO BE CLEARED



## Appendix E. Sources of information

### E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- 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)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics

- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

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)

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